UNIVERSITY COLLEGE LONDON

ANNUAL REPORT 1982 - 83

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FOREWORD BY THE PROVOST

PART I. STAFF MATTERS

1. *Continued general reductions in staff*

In 1982-83 the College was forced to continue on its massive programme of general reductions in staff numbers; the particular severity of these reductions at UCL being necessitated by aspects of the College's position with respect to each half of the huge twofold reduction in resources of the universities imposed by the present Government. The proportion of our students from outside the present European Community had long been relatively high (at 14 per cent) because good overseas students were attracted both by the College's reputation and by its metropolitan situation. The consequent recurrent resource reduction by fourteen per cent in real terms could at most be compensated for partially (about half) by recovery of fees from such students. Then the College additionally sustained a heavy share of those big 'volume cuts', imposed in the March 1981 budget; a share which represented a percentage reduction slightly greater than the reduction for the University of London as a whole; which, in turn, slightly exceeded the average recurrent resource reduction for UK universities.

The problem of maintaining UCL's academic effectiveness at a high level, both in original work and in teaching, in the face of these two heavy blows has required a massive effort, engaging the devoted attention of all academic and administrative areas of the College, and comprising five main aspects:

(a) Extremely energetic efforts to recruit good non-EC overseas students achieved a proportion (just under 13 per cent) close to the former proportion (14 per cent) without a distortion of academic standards in spite of the enormous deterrent effect of the high minimum fee. (Careful estimates have, we may note, indicated that charging fees above the minimum would have been ineffectual financially as well as undesirable in other ways.) These efforts do urgently need to be maintained, and even increased.

(b) Having recognised the necessity of making the maximum possible use of the available early-retirement schemes, the College agreed the huge target of 160 early retirements to be achieved under these schemes by 30 September 1984. Out of this total, 126 have now been firmly agreed and the College is determined to achieve the remaining thirty-four.

(c) In the non-staff areas of recurrent-resources expenditure by academic departments and by College administration and maintenance, a large percentage reduction (15 per cent in real terms between 1979-80 and 1982-83) was very reluctantly accepted in spite of the grave difficulties of sustaining teaching effectiveness and of maintaining the research base after such a reduction; there now remains practically no further scope for expenditure reductions in these areas.

(d) On the other hand, the College rejected the policy (adopted by some universities) of 'freezing' all vacancies resulting from natural wastage; and it did this on the grounds that the random incidence of these vacancies would produce an arbitrary distortion of academic policy and make impossible the maintenance of academic effectiveness across all main areas of the College's work. It was necessary, rather, to be highly selective and fill some modest proportion of the posts becoming vacant in this way; in fact, those posts that were essential for continued academic strength. For example, out of a total of 143 academic and technical staff posts becoming vacant in the sessions 1981-82 and 1982-83, a small proportion of essential posts (35 in number) were filled, and a few more (23) were replaced by appointments at a lower grade, leaving only eighty-five unfilled. To finance such a policy, the College in those sessions deliberately incurred deficits, due for repayment after the closing date (30 September 1984) for UGC-funded early retirements, when a period of level funding had been promised.

(e) In the meantime, primarily to maintain the College's leading position within a wide range of areas of research and development at a time of gravely reduced support from UGC sources, massive efforts to increase financial support for work at UCL from non-UGC sources were vigorously made. Such support, earmarked of course for specific purposes, and derived from Research Councils, charitable foundations, industrial companies and private individuals, increased as a result of these massive efforts to a total of £13.0M in 1982-83 (from £7.5M for UCL and UCHMS combined in 1979-80).

It will be seen that continuance of the Government policy of maintaining level funding in real terms after September 1984 is of vital importance for UCL's combined financial and academic strategy. Even with that continuance of Government policy, the College will need to maintain its staff reduction programme described

under (d) above for at least a year after September 1984 to bring its finances into balance. This programme of further reductions in the staff paid from the College's recurrent resources will make further severe inroads into its research base, as well as into teaching effectiveness, which the College has accepted only with the greatest reluctance. With every further reduction in staff numbers, the College's ability to maintain the internationally distinguished level of its contributions in teaching and in original work is further threatened. It is vital that the Government should recognise the pressing need to give important university institutions a breathing space for recovery after the drastic 'prunings' forced on them during the last three years.

At the same time, it will be greatly appreciated if the recently instituted 'New Blood' and related schemes can be continued in the years ahead, as it is only these schemes that, in present circumstances, can bring into the staffs of the universities appropriately gifted representatives of the generation born in the nineteen-fifties. The maintenance of a high level of well integrated research and teaching in the universities will, in the future, depend critically on what proportion of the ablest members of that generation have been recruited to university posts during the nineteen-eighties. For this reason, it is most satisfactory that (as recently announced) the number of New Blood appointments made in 1982-83 will be exceeded in 1983-84.

In its first year of operation, the scheme for New Blood posts, and related schemes (the Information Technology posts and the Royal Society's 1983 Research Fellowships), have benefited the Sciences and Engineering (see section 3 below) much more than the Arts. Also, most of the results of Departments winning large amounts of support from non-UGC sources (see (e) above) have been similarly directed. It is particularly satisfactory against this background to note that, in 1982-83, certain Arts subjects at UCL have been especially enabled to benefit from developments occurring within the University; including appointments to professorships, grants from the Court's special Academic Initiatives programme, and transfers of activities resulting from the Reports of Working Parties set up by the Joint Planning Committee of Court and Senate. These recent developments (see section 2 below) have significantly helped to maintain that balanced academic strength, comprising teaching at a high level closely integrated with distinguished original work in both Arts-based and Science-based subjects, which is valued so highly by University College London as a whole.

During 1982-83 five Readers in Arts subjects were identified within the College as scholars internationally recognised for original work of outstanding importance to their subject who should be proposed to the University for the conferment of the title of Professor. The University subsequently made all five conferments of title.

In the Slade School, of course, the special type of original work pursued by so many of the distinguished staff under Sir Lawrence Gowing's brilliant Directorship is painting. The Professorship awarded to Patrick George recognised the immense respect in which his work as a painter is held, and paid special tribute to the honesty of his unremitting struggle with reality and the solidity of his achievements. His is an austere art which, in Sir Ernst Gombrich's phrase, 'shuns rebellious gestures'; yet the cumulative impression of his 1980 retrospective exhibition at the Serpentine Gallery was seen as one of quiet grandeur. In the following year, appearing with work by two other 'stars' of the Slade (the former Director Sir William Coldstream and the College's distinguished Lecturer and Fellow Euan Uglow), Patrick George's work attracted high US acclaim through inclusion in the important 1981 New Haven exhibition 'Eight figurative painters'. The professorial appointment also honours in Patrick George a great teacher whose influence upon his students continues long after they have left the Slade.

The immensely prolific writings of Ted Honderich, along with his large and important editorial roles, have earned him a special place in English philosophy. His extensive publications on political philosophy, including major books analysing penal theory and the ethics of political violence from a philosophical standpoint, have also attracted widespread attention overseas. More recently, they were joined by new bodies of significant work concerned with the philosophy of mind and related topics. A philosopher who interacts most interestingly with the work in many areas of the College is honoured through Ted Honderich's professorial appointment.

The recent appearance of 'Roland Barthes: Structuralism and After' by Annette Lavers has raised to an even higher level her reputation as the leading critical interpreter in the English-speaking world of certain important contemporary currents of French literary criticism. The book has been hailed as 'an elaborate intellectual adventure in its own right in which Dr Lavers, while pursuing what she calls a "symptomatic analysis" of Barthes's works (of the individuality of each), succeeds also in providing a detailed, multi-dimensional map of "advanced" post-war French thought. Where

other authors attempting such a project have analysed this or that writer or theme within the framework supplied by a series of comfortable and unexamined platitudes, the special subtlety of Dr Lavers's book results from the application of an essentially interrogative critical intelligence — one which anatomises as it goes along precisely the platitudes on which a shallower account of the same material could have been based.' The professorship awarded to Annette Lavers recognises this achievement alongside a generous readiness to communicate her deep understanding of these matters not just to her own students but also to colleagues in all the literary departments of the College.

The Faculty of Arts during 1982-83 welcomed a further two appointments of leading scholars to conferred professorships. The new Professor in each of these last two cases was simultaneously to take over the Headship of Department on the retirement of the former Head.

The high international distinction of Andrew Watson's work in manuscript studies was shown already in 1979 through his election to the Comité International de Paléographie. It was in that year, too, that Dr Watson completed the Herculean task (part of a vast international project under the auspices of the Comité International) of bringing out the British Library Catalogue of Dated and Datable Manuscripts c. 700-1600, a work demonstrating great scholarly originality as well as palaeographical erudition. The appointment of Andrew Watson to a Professorship of Manuscript Studies has now followed the completion to the same meticulous standard of the 'Catalogue of Dated and Datable Manuscripts c. 435-1600 in Oxford Libraries'. Alongside his reputation as a paleographical scholar, Andrew Watson is widely admired for his success in organising the uniquely valuable Diploma in Archive Studies at UCL. It, and the other Archive-related teaching alongside it, combine to give a very special flavour to all the work of our important, and happily located, School of Library, Archive and Information Studies, of which Professor Watson now assumes the Headship.

The Department of Scandinavian Studies at UCL is world-famous for the range of its coverage of the Swedish, Danish, Norwegian, Faroese and Icelandic languages, literatures and associated history. The simultaneous appointment of Michael Barnes to a Professorship of Scandinavian Philology and to the Headship of the Department pays tribute to the great width and profundity of his linguistic scholarship, from the analysis of primitive Scandinavian runic inscriptions to deep syntactical studies of the many dialects of

modern Faroese; and recognises, too, his contributions to literary history. Thus, his edition and penetrating critical commentary established him as the world's leading authority on the famous Norwegian visionary poem *Draumkvæde*. Then, in 1977, after a period as Joint Editor, he became Chief Editor of the *Saga-Book* of the Viking Society for Northern Research. An inspired teacher, Michael Barnes is seen as an outstanding choice as this important Department's new Head.

I regretfully noted earlier that the Arts in the country as a whole benefited only very sparsely from the 1983 allocation of New Blood posts by UGC. Nevertheless, the proposal to which UCL had assigned its highest priority was successful. This was a proposal for a post in German History made by the Department of German with the History Department's strong support. The subsequent appointment of Dr Mary Fulbrook as a Lecturer in German History is simultaneously valued as reinforcing the German Department's powerful research interest in the historical context of German Literature and as balancing the College's existing strengths in other areas of Western European History.

For many decades these last strengths included an important centre for the History of the Low Countries, headed from the Chair of Dutch History currently held by Professor Konrad Swart. Then during 1982-83, the University's Joint Planning Committee set up a Working Party on Dutch Studies under the Chairmanship of His Excellency the Netherlands Ambassador, which recommended a move of the Department of Dutch from Bedford College to University College.The recommendation was unanimously agreed by both colleges and by the University. It is very specially welcomed at UCL as valuably complementing the College's strengths in the other Germanic Languages and Literatures to which references were made above.

The move brings to UCL the important Chair of Dutch Language and Literature of which the eminent holder is Professor Reinder Meijer, the author of the superb book *Literature of the Low Countries* and many other scholarly volumes of great importance. It also brings several other fine scholars in Dutch language and literature who join us with him: Mr Paul Vincent, who is the Department's Acting Head during Professor Meijer's sabbatical leave of absence in Indonesia; Dr Tanis Guest, the Department's expert in the fields of medieval and renaissance Dutch scholarship; and the excellent Flemish Lecturer Dr Hermans. They are accompanied by a library of 10,000 volumes (by far the finest academic Dutch Library in the country); and by a

language laboratory, which the College now plans to augment, so as to be able to use it for the teaching of a considerably wider range of languages.

In the meantime, studies of the English language itself continue to be pursued at a very high level at UCL after the appointment of Sidney Greenbaum both to the Quain Chair which Randolph Quirk had vacated on assuming the Vice-Chancellorship in 1981 and to the Directorship of the Survey of English Usage. Professor Greenbaum is the author of *Studies in English Adverbial Usage* and a co-author with Quirk, Leech and Svartvik of the massive *A Grammar of Contemporary English* and has been most warmly welcomed to UCL on his transfer from a Professorship at the University of Wisconsin.

Two more Joint Planning Committee Working Parties in Arts disciplines made recommendations in 1982-83 leading to staff moving from Bedford College to University College. The Working Party in Italian identified two excellent Lecturers, Peter Armour and Prue James, whose much appreciated translation to UCL is scheduled for October 1984. This is another development valuably reinforcing one of our important Modern Language and Literature Departments.

In the meantime, the College has already given a very warm welcome to the distinguished Professor Nicholas Coldstream whose transfer into the Yates Chair of Classical Art and Archaeology tenable at UCL was made possible through a recommendation of the Working Party in Classics. His great achievements and continuing energetic activity in Aegean Archaeology of the Minoan and Mycenean periods chime most admirably with the interests of UCL scholars in Ancient History, Egyptology, Greek, and Hebrew and Jewish Studies. Professor Coldstream brings with him from Bedford College a large and gifted group of postgraduate students pursuing research projects in the Eastern Mediterranean.

One further vacant Chair in the Faculty of Arts was filled in 1982-83 when Professor David Pearce, Head of the Department of Political Economy in the University of Aberdeen, was appointed Professor of Political Economy at UCL. Professor Pearce's strong interests in Cost Benefit Analysis, in Environmental Economics, and in Price Theory (all of these being subjects on which he is the author of important books) made his advent of the greatest interest to UCL workers in Public Law, Planning and Human Geography; while his notable administrative gifts are rapidly being brought into play as he takes over as Head of the Political Economy Department.

After a passing reference to Laws, we may note that the Laws Faculty benefited in 1982-83 from an earmarked 'Academic Initiatives'

grant given by the Court of the University. This allowed the appointment of a superbly qualified Reader in European Community Law, Mr John Usher (who had held posts at the European Court in Luxemburg and as the Director of a Unit in the University of Edinburgh) as well as of a Research Assistant. Britain's place in the European Community makes it of prime importance that this subject should be properly represented in one of Britain's great Law Schools.

Geography, too, benefited from a similar University initiative; an earmarked sum to support an intercollegiate activity in Remote Sensing. This arrived in happy consonance with the decision by two Research Councils (SERC and NERC) to support a London intercollegiate MSc in Remote Sensing, covering all aspects of terrestrial and marine measurement, exploration and resources assessment from satellites. The UCL work, while centred in the Department of Geography, involves also collaborations from several other Departments (see section 3).

An account of developments in two large Faculties during a whole session must necessarily be very selective. It is, however, a pleasure to have been able to note with satisfaction and gratitude in section 2 that many University actions in 1982-83 have significantly helped to maintain the effectiveness of the UCL Faculties of Arts and Laws at a time when the general difficulties of financial origin described in section 1 were particularly severe.

3. *Recent developments in the Sciences*

The announced policy for the 1983 New Blood scheme in the 'Natural Sciences' (including engineering and medicine) proposed a widely welcomed 200 appointments in British universities. It outlined, furthermore, an approach towards the achievement of selectivity which has been generally applauded.

This is an approach by which, in each scientific field, the University Grants Committee consults very closely with the appropriate Research Council before identifying which should be the successful applications out of those submitted by university departments. Each university institution (including UCL) had been asked to submit its own selection of applications in the science-based fields, with some indication of the priority ordering seen as appropriate in the light of the knowledge available locally within the institution. After using a method of scrutiny that had been agreed by Academic Board, the College submitted twenty-seven 'Natural Sciences' applications in a priority ordering. Out of these, nine were successful, including two in Engineering, three in Medicine and four in other areas of Science.

In Engineering, UCL's distinguished Offshore Engineering centre was further strengthened by a new Lecturer in Mechanical Engineering. At the same time, Chemical and Biochemical Engineering benefited from a New Blood post in a vital sub-discipline (Particle Technology) which was needed to support important research groups; especially, in industrial crystallisation and fluidised-bed engineering. The New Blood Lecturer in Particle Technology will also benefit the Department's new Centre for Biochemical Engineering and Biotechnology, the construction of which was happily completed in 1982-83.

In Medicine, two large and widely admired UCL Departments were strengthened in particularly successful areas of their activities: neonatal Intensive Care in the Department of Paediatrics, and Developmental Biology in the Department of Anatomy and Embryology. At the same time, a particularly distinguished UCL Professor without any UGC-paid supporting staff, working in an important field where professorial appointments have not been made elsewhere in Britain, acquired an excellent new Lecturer. This description is intended to identify, within the School of Medicine, our valued Professor of Toxicology: André McLean.

The same description, furthermore, identifies, within the Department of Physics and Astronomy, UCL's eminent Professor concerned with Positron Physics: Ceiri Griffith. It is a pleasure to report that the researches of Professor Griffith on gaseous positron physics, besides being both internationally renowned and unique within Britain, were strengthened simultaneously by a New Blood Lectureship and a Royal Society 1983 Research Fellowship. We should also note that the New Blood cases put forward by the large Department of Physics and Astronomy may, perhaps, have been favoured not only because of the Department's excellence but also because all of that Department's staff were over thirty-five; at any rate, they included one further Lectureship, used to strengthen the Infra Red group which contributed so substantially to the recent remarkable successes of the Infra Red Astronomy Satellite (IRAS).

The Mathematics Department's world-famous research team in Theoretical Fluid Mechanics was simultaneously strengthened by a New Blood appointment. This, alas, was the team that, later in the year, was dealt such a grave blow through the tragic and untimely death of Professor Keith Stewartson; the team's superb leader, who had surpassed even his earlier, marvellously original discoveries when he masterminded some quite revolutionary advances in the subject during his last ten years of life, through the introduction and popularisation of the 'triple deck' concept.

Lastly, in Statistical Science, a Department that had been recently strengthened (by the acquisition of Professor Philip Dawid), an additional access of strength from a New Blood Lectureship was awarded. Soon afterwards, this Department acquired another, even greater, access of strength through the arrival of the Clinical Operational Research Unit (CORU); a Department of Health and Social Security Unit of which the Director (who is a UCL Visiting Professor) is Professor Ray Jackson. He has five academic staff posts under him of which one is funded by the Imperial Cancer Research Fund. The Unit works in collaboration with clinicians and uses mathematical, statistical and computer models to assist in clinical trials and in other evaluations of potential and actual treatments of patients. The Unit's arrival has been warmly welcomed both by the Department of Statistical Sciences and by the Faculty of Clinical Sciences.

Alongside the 1983 New Blood posts listed above, the College acquired two posts from a closely related scheme: the Information Technology (IT) scheme. These posts were awarded to make possible an IT Conversion Course; that is, a one-year MSc course, operated by the Departments of Computer Science and of Electronic and Electrical Engineering, which is expected to be most effective in producing Information Technologists from graduates in related disciplines.

University College London, which claims to be itself a university-like institution (and, certainly, is larger than the average British university), was pleased to note its 1983 total of twelve new academic staff positions awarded by UGC in 'Arts' and 'Natural Sciences' New Blood posts and in Information Technology posts. The College was, furthermore, able to observe with satisfaction that, out of all Britain's actual universities, only three (Cambridge, Edinburgh and Oxford) exceeded this total of twelve, while just one (Bristol) equalled it.

In the meantime, a major recent achievement involving collaboration between a Reader in Mechanical Engineering, Bill Dover, and a Reader in Mathematics, Hugh Michael, had represented just one (but an important one) of the considerations taken into account during 1982-83 when both were proposed to the University for conferments of the title of Professor on them; conferments which were subsequently made. This achievement was the development of a brilliantly simple and versatile system for detecting cracks in metal structures (including offshore structures) and determining the location and size of each. The method, known as A.C. Field Measurement, is protected under UK Patent 47152/77 in both the UK and the USA

and is being commercially developed by two companies. It required massive efforts on the instrumentation development by a team under Bill Dover, supported by certain essential contributions from a mathematical analysis of outstanding quality contributed by Hugh Michael. In both cases, these recent achievements reinforced the already strong case for promotion based on earlier work by Bill Dover on the mechanics of fatigue and fracture and by Hugh Michael on electrohydrodynamic phenomena and other areas of theoretical fluid mechanics.

One more UCL Reader in a scientific discipline acquired promotion to a Professorship in 1982-83. This was David Colquhoun, internationally recognised for the exceptional merit of his researches concerned with the effect of drugs on the acetylcholine receptor, and its associated ion channel, in skeletal muscle. Besides this acclaim as one of the world leaders in an important and rapidly expanding field, David Colquhoun is admired as a most fluent and effective user of advanced statistical methods in biology. His 1971 textbook *Lectures on Biostatistics* is a beautifully written account of these very fruitful methods; an account which, indeed, reflects the excellence of his own lecturing style.

The story of Bloomsbury medicine given in the 1981-82 Annual Report (a story taken further in Part II of the present Foreword) had followed upon the history of Bloomsbury Electronics given the previous year. That sequence can now be continued with an up-to-date account of Bloomsbury Earth Science.

Exciting new developments spread over the academic year 1982-83 have combined to give UCL a Geology Department which is a most satisfactorily strong centre for many key areas of the geological sciences. It began in October 1982 with the arrival of the new departmental head, Professor Michael Audley-Charles, an energetic leader and a noted regional geologist currently engaged with colleagues in a massive study of the geology of Indonesia. The College simultaneously welcomed the eminent exploration geophysicist, Blake Matthews, as a Visiting (and, we have found, extremely active) Professor, and filled a vacant lectureship with another noted expert in this field, John Milsom. Combining admirably with the Department's existing distinguished group in marine geophysics and allied fields led by the Reader in Geology John Jones and the Reader in Geophysical Mechanics Stanley Murrell, the welcome advent of Professor Matthews and Dr Milsom has formed within the College a centre of notable geophysical strength.

During the year, the penetrating analysis of geology in the

University of London made by the Working Party under the chairmanship of Professor Alwyn Williams FRS demonstrated the need to concentrate geology within a smaller number of centres (just three, including Imperial College) that would each be able to teach the full range of modern geological sciences at a high level. To this end, the Working Party recommended that a group of geological staff from Queen Mary College (identifiable from cautious indications in the Report as Drs Greensmith, Hall, Rawson and Starmer) should move to UCL to help create such balanced strength in Bloomsbury. At the same time, three QMC staff specialising in Industrial Petrology and in the teaching of geology to civil engineers and to physical geographers would stay behind at Queen Mary College.

After the University accepted these conclusions, Queen Mary College acted with the utmost helpfulness and goodwill to facilitate the transfers of the staff, the students in both Geology and Geophysics, and the associated funding. On behalf of University College I should like to express the College's warm gratitude to members of the administrative staff of QMC for their greatly appreciated cooperation in this regard.

One area in which the move made possible the creation of a most satisfactory strong team has been Mineralogy and Petrology: an important field where, indeed, the College gained greatly both from the arrival of Drs Hall and Starmer, and from the simultaneous appointment of the Cambridge mineralogist David Price, a Royal Society 1983 Research Fellow under our eminent Reader in Crystallography, Dr Judith Milledge. With support also from other existing UCL staff, including the geochemistry and rock-mechanics contributions of Drs McArthur and Murrell, a powerful petrology team is beginning now to work most admirably together. In the meantime, the College's new Reader, Trevor Greensmith, brings us much appreciated expertise in Sedimentology, while the College's established teams in palaeontology and stratigraphy are reinforced by Dr Rawson's excellence in this field.

The main reputation of the UCL Department of Geology on the teaching side depended formerly upon the College's three highly valued MSc courses: the popular and effective Marine Earth Science course, the important Hydrogeology course admirably masterminded by Glyn Jones with some support from Physical Geography, and a distinguished Micropalaeontology course whose products are particularly valued by the oil industry. We are most grateful to British Petroleum for agreeing to finance the work at UCL of another new and extremely active Visiting Professor, Fred Banner, who recently

took early retirement from a Chair at University College Swansea, and who cooperates with our excellent Lecturer Dr Alan Lord to maintain the effectiveness of our Micropalaeontology MSc after the retirement of its originator, Professor Tom Barnard. Now, however, while all these fine MSc courses continue, we have been enabled by all our acquisitions of new staff to create from October 1983 onwards a greatly heightened level of BSc course material leading to degrees in Geology and in Exploration Geophysics. The honours undergraduate intake has doubled, to twenty-five a year, and the quality of the 1983 entrants is of a most satisfactory standard. These are very heartening developments.

The Earth Sciences at UCL have recently been strengthened not only within the Geology Department. Another energetic leader, the distinguished physical geographer Professor Ron Cooke, took over the Headship of the College's large and famous Geography Department, and has been reinforcing that Department's well established effectiveness both in such 'physical' areas as geomorphology and hydrology and also in those important fields (including desertification) where considerations from physical geography and from human geography interact. Soon afterwards, the Headship of the Department of Photogrammetry and Surveying was taken over by an eminent Australian, Professor Ian Harley, with a strong interest in the cartographic uses of photogrammetry; while the work of UCL's Mullard Space Science Laboratory began to involve a significant increase in Earth Oriented Satellite research and development. All the Departments mentioned in this paragraph are linked through the Remote Sensing programme mentioned in section 2, and in other ways.

In all the fields mentioned, there is, furthermore, a rapidly growing cooperation with the Birkbeck College Departments of Geology and of Geography, involving significant resource sharing for the benefit of UCL's full-time and Birkbeck's part-time undergraduates and both Colleges' research and postgraduate work. Examples of this cooperation that directly benefit UCL are given by our Geology Department's current reliance upon rock-cutting facilities in the Birkbeck Department of Geology headed by Dr John Temple; by our Geography Department's reliance upon Automated Cartography facilities in the Birkbeck Department of Geography, headed by the recently arrived Professor David Rhind, a noted expert in this field; and by the participation of both Colleges, with others, in teaching the important new intercollegiate MSc Course in Remote Sensing.

Now a still greater volume of cooperation in the Earth Sciences

between the UCL Departments and the Birkbeck Departments is being enthusiastically planned by both Colleges, along the lines advocated in the Report of the Working Party under Alwyn Williams' chairmanship. This will help us to achieve the level of academic strength in Bloomsbury Earth Science, stretching across all major areas of the discipline, that can be really effective in meeting national needs, research and postgraduate needs, and the needs of Bloomsbury's full-time and part-time undergraduate students.

PART II. CLINICAL STUDENTS

Part II, related to Clinical Students, consists entirely of my speech of welcome, given on 26 September 1983, to the first students embarking on the Joint School Common Clinical Curriculum.

I should like to give a very warm personal and individual welcome to every one of you (and that's 216 welcomes, to be precise); and I want to congratulate all of you on being the first 216 students in a great new enterprise for clinical education of superb quality at the highest international standard. I refer, of course, to the combined clinical education programme of the Joint School based on (in alphabetical order!) The Middlesex Hospital Medical School and the University College London School of Medicine; represented here by The MHMS Dean, Mr William Slack and by the UCL Dean of Clinical Sciences, Professor Denys Fairweather. And may I make it clear that I personally am standing here and offering these first welcoming words entirely in my capacity as the Chairman of the Joint School Coordinating Committee, (as its Chairman, in fact, since the Joint School was formed 18 months ago); and that is a Committee whose members, after masterminding eighteen months of quite exceptionally hard work on detailed planning, are today seeing the first fruits of their work in this historic moment: a moment when you (all 216 of you) and we (the staff of the Joint School) are inaugurating a completely common clinical curriculum, and thus making a great beginning in the combined educational activity of a most powerful new joint institution.

So you see that history really is being made today, and I believe all of us from the outset have felt that we would be having not only history but also geography on our side. We are forming this great new Joint School of Medicine from two extremely close neighbours; and, indeed, from two neighbouring Schools of Medicine with a large amount of history in common. Both of these Schools were first opened to students about a century and a half ago (opened to students after much preparatory work, rather as the Joint School is being opened today); one was opened in 1828 and one in 1835, and they were both opened by means of a grand inaugural lecture given in each case by one and the same man: Sir Charles Bell, who successively held professorial chairs in both institutions. And the intervening century and a half has seen a lot of scientific collaboration between us.

And now the Joint School, which is so fortunate in the excellence of its first 216 students, is able to offer those students the benefit of

pooled resources for medical education on a completely exceptional scale. I am speaking here of the pooled resources of two very famous and effective Medical Schools, and of their fine academic staffs. And I want to emphasise that those academic resources are combined with remarkable hospital resources resulting both from the pooling of the magnificent clinical facilities based on (in inverse alphabetical order!) University College Hospital and The Middlesex Hospital (facilities that are now being administered as a unity by the Bloomsbury Health Authority); and from another great clinical resource at the Whittington and Royal Northern Hospitals administered by the Islington Health Authority. And our three Undergraduate Sub-Deans for University College, for The Middlesex, and for Islington (Dr Armstrong, Mr Gould and Mr Cochrane) are here with us on the platform. And I will also remark that in three particular specialities (Urology, Otolaryngology and Orthopaedics) there will be benefit from the postgraduate Institutes in those three fields that are part of the Joint School.

Now a lot of you here spent the academic years starting in 1981 and 1982 taking the Basic Medical Sciences Course either within The MHMS or in the UCL Faculty of Medical Sciences; or else it was the years beginning in 1980 and 1981, because after those you seized the invaluable opportunity of an intercalated BSc degree. And to each of you who have all along been in one or other of our two Medical Schools I want to underline the big advantage you have won over the students of earlier years from either School: the advantage you will gain from the Common Clinical Curriculum which will bring you so much wider experience, more extensive facilities and fuller staff expertise. And, at the same time, we are proud to offer these enhanced advantages too to those whom we welcome from degree courses at Cambridge or Oxford. All are warmly welcome and all will greatly benefit; and all 216 of you will be helped to pool your own different strengths and your own past experiences because (as you will know) 216 is a beautiful number (the cube of 6, it is 6 times 36) and you have been divided into thirty-six groups of six, into thirty-six 'firms', and every one of those groups of six is a mixture of students whose preclinical work was done in different locations. So the Joint School will be forged in each and every one of the firms in which you will be taking part as that firm moves around all of the locations represented here on this platform; and as it benefits from all the resources for medical education that have been built up, here in the northern part of London, during the past 150 years.

Academic Development

The year 1982-83 was a key one in the three-year series of reductions enforced upon the College as a result of the Government's financial cuts. Inevitably it was a yet more difficult period since each reduction has progressively eroded the resources of every part of the College. Academic Departments did well both to cope with these reductions in resources and at the same time to facilitate a sufficient flow of early retirements to meet savings targets. Accompanying the need for reductions in staff and resources much extra work was entailed by the restructuring of the University and by the College's endeavours to gain extra income from non-UGC sources. Despite the reductions in resources and the increase in workload, by careful planning, the teaching and research balance in the College has been maintained, although not without some difficulties. There has been, throughout the year, a proper attention to the considerable demands of academic staff, supporting staff and resource costs.

The year saw a concentration of effort on the restructuring plans of the University. The University's Joint Planning Committee set up a number of working parties concerned with Dutch, Italian, Philosophy, Classics, Nursing Studies, Pharmacy, Mathematics and Statistics, Physics, Geology, Nutrition and Food Science, Radiation Biology, Chemistry and Computer Science. The recommendations of these working parties were published during the first half of 1983 and included a number of proposals affecting the College. These are:

(i) Geology is to be re-organised within the University with one of its centres in the Bloomsbury area. This has resulted in a Reader, three lecturers, three technicians and proportional numbers of students and other resources being transferred from Queen Mary College to UCL. Applied Geology remains at QMC.

(ii) The Department of Dutch will be transferred from Bedford College to UCL. Accordingly, one Professor and three lecturers, together with their students and related resources, will come to the College at the beginning of the 1983-84 session.

(iii) As part of the restructuring of Classics, one Professor will transfer from Bedford College to UCL to fill the Yates Chair

of Classical Art and Archaeology which became vacant on the retirement of Professor P. E. Corbett.

(iv) It is planned that in time for the 1984-85 session two lecturers in Italian and an appropriate number of students, will move from Bedford College to UCL. Similarly there will be a reorganisation of Mathematics, which will result in a transfer of one Professor and two lecturers from Bedford College.

(v) Meanwhile, the negotiations referred to in the 1981-82 Report have come to fruition and the College reached agreement with Birkbeck College to share the UCL Chemistry facilities and accommodation in the Christopher Ingold Laboratories at 20 Gordon Street. This will mean some additional building to accommodate Birkbeck College lecturers but overall there will be a considerable saving in money and resources.

The College Seven-Point Plan put forward by the Provost in 1981-82, and detailed in the 1982-83 Report, entails:

(a) Filling only the most essential posts when they fall vacant.

(b) Filling such vacancies wherever possible by transfer of staff.

(c) Scrutinising carefully the more lightly-loaded departments to find where savings may be made with least academic damage.

(d) Utilising to the maximum the schemes presently available for the early retirement or severance of staff who wish to leave the service where it is in the interests of the College for them to do so.

(e) Seeking substantial external financial support for academic activities even greater than that obtained in the past.

(f) Reducing wherever possible costs of maintaining premises.

(g) Maintaining as high a level as possible of overseas student intake.

This plan was again adhered to and has been given continual emphasis. Indeed, without this major thrust the College would not be able to meet its considerable savings target. Some fifty premature retirements were agreed by the College during the course of the year and this is in line with the College's target. A further fifty will be needed in 1983-84, the final year of the UGC Premature Retirement Compensation Scheme.

An area that has been given very detailed attention is that of external finance. The College continues to have success, but every possible avenue needs to be explored. The main source of income in addition to UGC funds is from Government research agencies but the support from industry continues to grow.

All saving is carefully monitored both by the Departments themselves and by the central Administration but Departments can only achieve savings by a very careful appraisal of staffing levels, and the number of staff supported by UGC funds has declined considerably. As a result of continued efforts to increase income from external sources, it has been possible for overall staff numbers to rise in line with student numbers, which currently total nearly 7,000.

The College was fortunate to be awarded grants for two academic initiatives to commence in 1983-84, under a scheme of the Court of the University which had also operated in 1980-81 and 1981-82. The grants were:

(i) £30,000 for the appointment of a Reader and a Research Assistant in European Community Law.

(ii) £60,000 for the establishment of a Department of Community Dentistry and Dental Practice with a professorial Head and supporting staff.

These grants will be an addition to the College's Recurrent Grant and will take account of inflation: they represent valuable additions to the College's academic breadth and staff.

For 1983-84 UCL has secured ten of the 242 'New Blood' posts in Arts and Science approved by the UGC, in consultation with the Research Councils for the UK. In addition, the College was awarded two posts in Information Technology, also starting in 1983-84, to provide an MSc Conversion Course in Information Technology. In total, therefore, twelve new posts were obtained bringing an additional £235,000 per annum in Recurrent Grant. The posts gained were:

ARTS	*German*: German History.
MEDICINE	*Paediatrics:* Prevention of brain damage in neonates; *Clinical Pharmacology:* Toxicology.
ENGINEERING	*Chemical and Biochemical Engineering:* Particle Technology; *Mechanical Engineering:* Offshore Structural Integrity.

SCIENCE	*Mathematics:* Computational Fluid Mechanics; *Physics and Astronomy:* (i) Space astronomy; (ii) Positron Physics; *Statistical Science:* Evaluation of Statistical Procedures; *Anatomy and Embryology:* Developmental Biology.

Of the two posts in Information Technology, one was allocated to the Department of Computer Science and the other to the Department of Electronic and Electrical Engineering.

Finances

The belated announcement of the College Grant — more than two months into the financial year — confirmed the College's expectations. On the one hand, it reflected the continuing programme of severe Government cuts, and on the other, the implementation of the Court's revised allocation methods (described below) ensured that the College maintained its proportion of the University's total resources. In financial terms, it represented a shortfall of some £2m on the previous year's commitments and Council endorsed the economies programme already formulated by Finance Committee in anticipation of the grant announcement. This included setting savings targets throughout the College for achievement by September 1984, the date on which the UGC PRCS would come to an end. Within the context of the College's policy of no compulsory redundancies, 160 such retirements were sought, and by the end of the year the number of volunteers taking advantage of the Scheme suggested that the College was on course to achieve its quota. On the positive side, the year saw the continued growth of support for College research from non-UGC sources, in addition to the 'New Blood' and Academic Initiative posts referred to earlier in this Report. Indeed, the college has been so successful in seeking alternative sources of funding to the diminishing UGC grant that the overall staff population has actually increased during the years 1978-79 to 1982-83 — from 1,976 to 2,014 in Academic Departments. One of the consequences of this situation has been the need to preserve the funds available for the maintenance of College premises despite a reduced UGC budget. This has been achieved largely by diverting the savings achieved through the modernisation of power and heating supply methods towards securing the provisions available for repairs to the fabric of the buildings and the future renewal of essential mechanical and

electrical services. In this way the College is striving to avoid the danger threatening so many universities and colleges, namely the reduction of maintenance expenditure in the short term at the expense of the preservation of its premises for future generations.

Overseas students have always been a feature of the academic life of the College and are vitally important financially. The continuing success of the College recruitment programme is reflected in the number of such students who, despite increased fee levels, enrolled during 1982-83, thus enabling the required level of fee income from this source to be maintained.

The Government cuts, including those resulting from the revised policy on overseas students, will result in a reduction in resources of between eighteen and twenty per cent during the period from 1979 to 1984. This has meant that the College, having adopted a policy of no compulsory redundancies, has been compelled to enter a period of deficit financing on its revenue account. However, it remains within the limits set by Finance Committee and Council in 1980 and the healthy cash-flow continues to ensure that this deficit remains internally financed.

An important new criterion was introduced into the University Court's distribution of Recurrent and Equipment resources in 1982-83 in recognition of the 'Research Factor' — the influence of research on University costs. It was clear that in making its allocation the Court had traditionally taken account of the relative 'Unit Costs' (expenditure divided by 'Student Load' in £ per student) of the University's constituent colleges, but it was not apparent that due financial allowance had been made for research and other original work. Furthermore, the discussion surrounding Sir Peter Swinnerton-Dyer's Committee on Academic Organisation Discussion Document No. 2 was tending also to focus on relative Unit Costs and so perpetuate any imbalance that might exist. The College therefore welcomed specific reference in the UGC Grant distribution letter of 1 July 1981 to the financial needs created by research and the 'dual support system' (under which the UGC provides for a research floor 'capable as far as possible of sustaining specific support from Research Councils and elsewhere'). Encouraged by this, the Provost drew the Senate's attention to the need for any arithmetical procedures used in Court Grant allocation to take those principles into account. As a result a Study Group on Grant Allocation was set up which considered the Provost's proposals and made recommendations to the Court that led to specific financial recognition, in both the Recurrent and Equipment Grant allocations, for the 'Research

Factor' in Engineering and Physical and Biological Sciences. The system adopted was similar to that applied within UCL for many years, whereby an element of available resources is distributed in direct proportion to external research support. This both acknowledges the cost of sustaining the dual support system and provides a built-in incentive to seek external support at a time of declining UGC resources.

Whilst Colleges do not have access to the detailed Court arithmetic, there can be no doubt that the addition of this Research Factor to the criteria adopted for grant allocations has benefited the College significantly.

Income in 1982-83 amounted to £46,277,998. Expenditure in 1982-83 was £47,039,809, inclusive of the cost of research borne by outside grants which total £10,638,582 compared with £9,022,612 in 1981-82. The number of these grants was 664 (746 in 1981-82). Special court grants and capital funds in recurrent grants announced for the year amounted to £326,489 compared with £13,848 for the previous year. Receipts against these and previous Capital Grants amounted to £181,913 compared with £137,353 in 1981-82. The detailed College Accounts for 1982-83 will be found at Appendix VII.

UCL/The MHMS Joint School of Medicine

Encouraging progress has been made towards the formation of the proposed Joint School of UCL, The Middlesex Hospital Medical School, and the Postgraduate Institutes of Laryngology and Otology, Orthopaedics, and Urology. In October 1983 Clinical undergraduate medical students of UCL and The MHMS will begin a common curriculum. They will share the resources of the two clinical schools and associated hospitals, the Whittington and royal Northern Hospitals, and the Postgraduate Institutes. These combined strengths will provide students with unique opportunities for clinical experience, and it augurs well that a major co-operation of this kind has so swiftly and amicably been established.

The creation of Joint Departments offers the opportunity to develop complementary strengths, so that even in a time of diminishing resources there can be maintained a spectrum of teaching and research that, alone, neither institution could hope to achieve. Thus in October 1982 the Department of Morbid Anatomy at UCL and the Department of Histopathology at The MHMS were amalgamated to form a Joint Department of Histopathology.

Such collaboration is not exclusive to the clinical departments. At first it was difficult to see how similar developments could be realised in the preclinical area, but an opportunity has arisen in Physiology, where the retiring Head of Department at The MHMS will, following consultation with the UCL Jodrell Professor of Physiology, be replaced in such a way as to strengthen the combined resources.

An interesting recent development has arisen out of discussion between UCL Bioengineering Centre and the Department of Biomedical Engineering at the Royal National Orthopaedic Hospital and the possibility of establishing a joint centre is being explored.

Another Joint School venture, which has the active encouragement of the Bloomsbury District Health Authority, is the proposal to establish BSc degrees for selected students in subjects allied to Medicine, e.g. Nursing Studies.

One great step remains. It is to agree an academic structure for this Joint School. Widespread discussion on this vital matter has begun, and a mutually acceptable solution will most surely be found.

DHSS Research Centre for Mathematical Modelling of Clinical Trials

This year has seen the establishment of a new unit in the College funded from outside sources, namely the Research Centre for Mathematical Modelling of Clinical Trials located in the department of Statistical Science. For some years the DHSS had supported an applied mathematics group at the University at Warwick, engaged in modelling the progress of patients undergoing clinical trials and in devising related computerised information systems. Independently, and over a longer period of years, the Department of Statistics at UCL, now entitled Statistical Science to reflect its wide interests, has been deeply involved in biological and medical statistics, offering practical advice to clinicians on the design and analysis of their studies. The move of the DHSS group to the UCL Department in October 1983 is an exciting initiative that will, it is hoped, have fruitful implications for work at the interface of medicine and the mathematical sciences. The new Centre will collaborate with practising clinicians, in the College and further afield, and with research clinicians in specialised hospital departments. Its method of working will be to develop and validate mathematical and statistical models and to exploit the latest information technology in aid of these objectives. Its overriding concern will be to evaluate the practical efficiency of actual and potential treatments of a wide range of disease processes.

Student Targets

The last Annual Report included a resumé of the Government-imposed restrictions on the low fee-paying populations of universities and an explanation of the virtual impossibility of taking any remedial action in time for the October 1981 intake. This year the College was in a much stronger position to modify its admission policy and it is pleasing to report that the low fee-paying undergraduate entry numbers in October 1982 were extremely close to the target which was outlined in the last Report. All but a few departments were closely on target and when the numbers were aggregated into Faculty groupings it transpired that each Faculty had met its target with quite remarkable precision. Some inevitable changes in students numbers occurred during the first term as a result of students changing courses, or dropping out, and there were some cases of reclassification of fee-paying status, but the Registrar's count on 31 December 1982, revealed that the 1982-83 intake of low fee-paying Arts-based and Science-based undergraduates was 1,285, just thirty students less than the target figure of 1,315.

The 1982-83 session brought some welcome news of increases in the allowable student population. In the light of the recommendation of the Swinnerton-Dyer Committee and on the findings of the SARC reports, the Court adopted a policy of concentration of the teaching of Science subjects on five sites of the University. This policy of rationalisation led to a re-distribution of student numbers among the Colleges and resulted in an increase of 200, from 1,636 to 1,836, in the College's allocation of low fee-paying students on Science-based courses, including twenty places for a new course in Biotechnology.

The figure for Arts-based courses remained unchanged at 2,572.

Subsequently the College received approval to set up an undergraduate course in Exploration Geophysics, and an allocation of an additional annual intake of six students was agreed. An MSc course in Remote Sensing was approved with an intake target of ten students in 1983-84 rising to twenty-five by 1985-86. A final addition to the low fee-paying student population came with the announcement of approval to set up at UCL an MSc Conversion Course in Information Technology with an allocation of twenty postgraduate students.

It might be thought that the increased population figures, as outlined in the preceding paragraph, would allow significant increases in the intake targets for October 1983 as compared to the previous year. Regrettably this is not so and the best projections that can be made suggest that further small reductions will have to be made to the

undergraduate intake figures of certain Faculties if the College is to be on course in 1984-85. It has also been necessary to restrict the numbers attending certain postgraduate taught courses, but the College has reaffirmed its policy of offering places to all research students who are deemed to be of adequate calibre to maintain the reputation of the College as a centre of excellence. The success or otherwise of the policies outlined above will doubtless be discussed in the next Annual Report.

Student Numbers

On 31 December 1982 there were 6,838 students registered at the College (including those in the Faculty of Clinical Sciences). Of these, 5,014 were full-time undergraduates, of whom 1,651 were newly-admitted undergraduates.

The total postgraduate population at the same date stood at 1,717. 1,215 of these were studying on a full-time basis and 502 were part-time. Forty-four per cent of the full-time postgraduates and sixty-four per cent of the part-time postgraduate students were undertaking research.

The College continues to attract students from many overseas countries. The total overseas student population at 31 December 1982 was 1,186. At this date there were 474 full-time students from thirty-four Commonwealth countries and 569 from other foreign countries, the latter category including 186 from EEC nations; of these full-time students, 523 were studying at postgraduate level. There were 143 part-time overseas students, 106 of these being postgraduates.

The number of full-time students who paid the overseas higher rate of fee was 761 at 31 December 1982, 12.22 per cent of the total College full-time student population.

Of the full-time undergraduate students in attendance at the College 620 were housed in College Halls of Residence, 1,000 in College houses and 280 in University Halls of Residence. 2,120 resided in lodgings and the remaining 990 lived at home.

Overseas Students and Exchanges

During the year various steps were taken to ensure the continuing recruitment of well qualified overseas students to the College despite the higher fees.

In the USA, Dr W. M. Deal, the Student Recruitment Adviser, has acted as the College's representative and has been the focus of recruitment activities in North America. The Registrar accepted an

invitation to speak at the Annual Conference of the American Association of Collegiate Registrars and Admission Officers in Boston. He also attended the Annual Conference of the National Association for Foreign Student Affairs in Cincinnati. At these two conferences he took advantage of the invitations to discuss with the Foreign Study Advisers/Directors of Study Abroad of more than fifty American universities and colleges the facilities and opportunities available at University College London for non-degree (Junior Year Abroad) and postgraduate study.

In addition to the exchange schemes already established with several American universities two new programmes were introduced. Formal schemes for student exchange were agreed between the Slade School and the New York Studio School of Drawing, Painting and Sculpture, and the Cooper Union, also in New York. Discussions about closer links and further exchange agreements are progressing with a number of other universities in the USA, including the Rochester Institute of Technology, New York, and the Banff Centre School of Fine Arts, Alberta, Canada. Members of staff visiting overseas countries have taken supplies of literature about study facilities at the College and the new College film is proving to be useful in recruiting abroad. Copies have been sold to British Council offices in Poland, Hong Kong and Japan.

The Appeal

Her Majesty Queen Elizabeth the Queen Mother attended an informal luncheon on 3 June 1983 to mark the College's intention to begin work on the new buildings that will complete the 'Gower Street Gap'. Among the guests were Sir Hugh Casson, to whose design these buildings were being constructed, and Dr and Mrs Armand Hammer. Guests were shown the Gower Street plans and selected objects from the Flinders Petrie Collection. After lunch Her Majesty met a number of staff and students at coffee in the Margaret Murray Room and was presented with a copy of Miss Murray's book, *My First Hundred Years*.

Another notable event was a dinner at Mansion House on 5 May, in the presence of the Lord Mayor, Sir Anthony Jolliffe. This dinner was held at the suggestion of Sir Bernard Waley-Cohen, former Chairman of the College Council, and provided an excellent opportunity for the Chairman of Council and the Provost to speak about the College and its needs to a large number of influential figures. As a direct consequence, the Appeal has so far benefited by

some £36,000. A further encouraging fact is that staff contributions, largely by Deed of Covenant, now total over £80,000.

Nevertheless, taking into account both the Sandoz agreement and the Appeal, there is still a deficit of some £200,000 on the Gower Street project. Thus further support is still urgently needed.

Finally, it remains a great disappointment that so far two Appeal projects, the new Flinders Petrie Museum and Union buildings, have failed to attract major donations.

College Sites and Buildings

It is probable that everyone has seen Sir Hugh Casson's sketch which has appeared in all the brochures and papers connected with the 150th Anniversary Appeal. The long-held hopes of carrying out this project to complete the Gower Street entrance are about to come to fruition. The decision to proceed with the project was made at the end of 1982 when the College agreed to pre-order the stone for the building. Quarrying started in the New Year and the stones are being delivered to a firm of masons in Uttoxeter where they are being cut, carved, dressed and cured ready for delivery to the site as and when required.

Building work started on site on 25 July 1983 and will take nearly two years to complete. Both wings, north and south of the present entrance, will rise together. The scale of the project raised the problem of whether the main entrance to the front quadrangle could be kept open for cars and pedestrians during the work. After much debate it was finally agreed that it would be better to close this entrance, except for emergencies, so as to facilitate the work and reduce the problems of safety and security. Except for the fenced area required by the contractor, the College will experience a front quadrangle free of cars for two years and Wilkins's portico should provide a grandstand view of the works.

The project to complete the top floor of the Christopher Ingold Laboratories in Gordon Street has been carried out. The chemists remaining in the Kathleen Lonsdale Building moved into their new laboratories in July and August thus bringing the whole of the Chemistry Department together. The new floor is laid out as two open-plan laboratories on each side of a core of special instrument rooms to provide modern facilities for forty-two research workers in Organic Chemistry. To comply with current requirements in this field of research, each place is equipped with a high grade fume cupboard. The heat loss from each of these, amounting to 11kw per

unit in winter, presented the engineers of the Bursar's Department with the problem of how to avoid the cost of installing and running additional boiler plant. The solution was to install a system using heat-pipe exchangers to recover heat from the fume cupboard system to warm the incoming air supply.

The completion of the Chemistry project released the top two floors of the Kathleen Lonsdale Building for possession by the Sandoz Institute. It is understood that their proposals include rebuilding the top floor with a completely new structure to house their research work. Work started on site at the end of August and is scheduled for completion by November 1984.

These major new projects have overshadowed a number of interesting but smaller tasks. Among these, as forecast in the 1981-82 Report, is an intricate new building in Chenies Mews for the Department of Haematology's research into leukaemia funded largely by a benefaction from the Sportsman's Aid Society. Projects to provide laboratories for Therapeutic Endoscopy and Clinical Pharmacology have been completed during the year and schemes have been prepared for Mental Health and improvements to the Clinical Photographic Unit and the Clinical Library.

In the Rectangle the Departments of German and Scandinavian Studies have settled into the three refurbished houses at 16-18 Gordon Square. Two other houses at 17 and 19 Gordon Street have been converted and extensively refurbished for the MRC Unit for Cognitive Development. The former Psychology Animal House has been brought into line with modern requirements as a laboratory for work in Psychopharmacology. The conversion of the former Foster Court refectory into a suite of laboratories for the newly-formed Centre for Biochemical Engineering and Biotechnology is ready for occupation.

Many other works to maintain and improve College facilities continue, too numerous to list. Perhaps the most noticeable are the continuing improvements to the Main Refectory, and the completion of the new bar in the Old Refectory. Finally the replacement of fume cupboards with modern units has continued; forty cupboards were replaced in the year.

Plans to incorporate the Centre for Environmental Studies Library into the Wates House Library led to the suggestion that the new enlarged Library should be re-named 'The Llewelyn-Davies Library' in memory of the late Lord Llewelyn-Davies who was Professor of Architecture and of Urban Planning and a former Head of the Bartlett School. Council resolved that the Wates House Library should be renamed accordingly.

The Shenley Grounds Committee expressed a wish to name the changing rooms at Shenley Athletic Ground after Dr Gordon Hall in recognition and appreciation of his dedicated services to the improvement of facilities at the sports ground. The Academic Board approved the proposal to name the changing rooms The Gordon Hall Building.

Among the more successful additions to the College's working tools and cultural amenities during the last few years have been the new Print Room and the modernised display system in the Cloisters. On the initiative of the College Secretary a working party on the College Art Collections Committee is now actively investigating the possibility of a handsome completion of the Cloisters display system in the area of the North Junction. Mr James Gowan, a leading architect, has presented for consideration a scheme which will, it is hoped, allow the College for the first time to present to the public, as well as to its own members, a visual display which will give some idea of its history, its ethos and its past achievements, together with a regularly changing view of some of the current activities through which its many departments are working to maintain and enhance its reputation both in teaching and research.

Staffing Matters

As announced in the 1981-82 Report Mr John Tovell handed over the Secretaryship of the College on 1 September 1982 to Major-General Ian Baker (who wishes to be known as Mr Ian Baker), lately General Officer Commanding North East District and a previous Assistant Chief of the General Staff.

The year has seen a consolidation following recent reductions in staff and the new College Secretary has been concerned to see that the re-organised structure of the administrative staff should have time to settle down in its new shape. The Administration has had a busy year in which all four divisions have been under considerable pressure and despite reductions in staff much has been achieved. The load has been particularly notable in the Bursar's Division, where a number of major building ventures have been undertaken in the course of the year. The Finance Officer, the Registrar and the Senior Assistant Secretary (General) and their Divisions have been presented with a series of challenges and have done well to contend successfully with them. The continued introduction of computerised systems has been beneficial and work continues apace in this area. The restructuring of the University, and in particular the planning of the Joint School,

comprising the College and The MHMS, has produced a substantial additional workload. Despite the difficulties, the new organisation is settling down well and the streamlining that has been achieved is now yielding the desired results.

Following the retirement of Mr H. Feasey, Mrs Julia Baker was appointed Senior Personnel Officer (Academic); she had worked previously at Westfield College. Mr D. H. Mann, Assistant Bursar, and Mr H. Smith, the Maintenance Surveyor left the Bursar's Division after years of loyal service to the College. Mr B. L. White took up office as the new Maintenance Surveyor on 25 July 1983.

Continued efforts are being made to save on maintenance costs in all areas but the scope for such economies is limited since previous reductions have resulted in a much lower level of maintenance funding. It is essential that maintenance costs, on both buildings and staff, be kept to a minimum, but at the same time on the crowded Gower Street site the essential quality and balance of life must be safeguarded.

This year saw the first comprehensive programme of in-house training activities for all categories of staff. The programme included lecture practice and student interviewing sessions for academic staff; customer-handling skills sessions for security staff; information sessions on audio-visual facilities and safety; a supervisory skills course; an office skills course; and a workshop on financial planning and resource allocation for administrative staff. There have also been regular induction sessions for new members of the non-academic staff as well as the established induction session for new academics. In all more than 400 people attended the various activities in the programme.

Academic Matters

Following the retirement of Professor P. E. Corbett as Yates Professor of Classical Art and Archaeology in the Department of Classical Archaeology in September 1982, discussions were held as to the best way to ensure continuity in the teaching and research programme of classical archaeology, and as an interim measure it was agreed that Classical Archaeology should form a separately identified section of the department of History for the session 1982-83 similar to the Medieval Archaeology section. The Academic Board Sub-Committee, set up to consider the filling of the vacant Yates Chair, submitted a recommendation to the University Working Party on Classics that the Chair be filled by the transfer of a Professor from within the

University and the Working Party endorsed this recommendation in its final Report. In the light of this transfer Classical Archaeology will be reconstituted as an academic department.

From 1 January 1983, at the recommendation of the Heads of the Departments of Medicine, Community Medicine and the General Practice Unit, the Department of Community Medicine and the General Practice Unit became constituent units of the Department of Medicine. At the same time discussions took place with representatives of The MHMS, the Professor of Community Health at the London School of Hygiene and Tropical Medicine and the Bloomsbury District Medical Officer, to formulate proposals for a new Joint Department of Community Medicine in the Joint School. These proposals have been considered by a Working Party, and the University is to be invited to fill the Chair of Community Medicine tenable in the new Joint Department from October 1984 or earlier.

In 1974 the College established the Freud Memorial Visiting Professorship of Psychoanalysis with the support of a generous endowment from the Honourable David Astor. The aims of this development were 'to promote the study and critical examination of psychoanalysis including its theoretical aspects and its cultural implications' and 'generally to facilitate any studies or research into psychoanalysis'. A series of distinguished appointments, normally for one year, has been made since the institution of the Professorship and the development has been a considerable success. In 1982 the Board of Management of the Freud Professorship, having considered the advantages to be gained from making longer-term appointments, agreed that a recommendation be submitted to the University for the establishment of the Freud Memorial Chair of Psychoanalysis, the first Chair of its kind in the University. The University has approved the establishment with effect from October 1984.

For the first time this year the Faculty of Laws organised conferences as part of a new programme of continuing education for practitioners. The first was held on the topics of Wills, Inheritance and Capital Taxes, the second on EEC Competition Law and Practice. Both were well attended and highly successful. A Workshop on Legislative Reform and East-West Trade was held in the Faculty in June 1983.

In October 1982 a new field of study for the BSc Degree in the Faculty of Science was introduced in Ecology, for which teaching is offered jointly by the Departments of Botany and Microbiology, Geography, and Zoology and Comparative Anatomy. It was resolved that no further admissions would be made to the BA Degree courses

in French and Philosophy and Hebrew and Akkadian. The existing University-sponsored MA Degree in Scandinavian Studies (Medieval and West Norse Studies) became School-sponsored for students registering in and after October 1982, and an additional field (Modern Studies) was instituted as a School-sponsored course. Three more Masters Degrees were introduced on College-sponsored syllabuses — MSc Degrees in Science in Applied Molecular Biology and Biotechnology and in Computer Science (the latter having formerly been taught on a University-sponsored syllabus), and an MSc in Engineering in Numerical Methods in Photogrammetry and Surveying. The College commenced teaching for the University Diploma in Air and Space Law, whilst College Diplomas were introduced in General and Medical Microbiology and in Fine Art, the latter at undergraduate level.

The Library

The principal concern of the Library staff and of the Library Committee has been the maintenance of the Library's strong research collections and excellent services to readers in a situation of reduction in funding. The Library's purchasing power has been declining in the face of inflation in book and periodical prices higher than general inflation, and considerable efforts are being directed towards increasing the Library's income and making the best use of the resources available. In this context co-operation between libraries is of the utmost importance, and during the session a large bookstore, to be managed jointly by Birkbeck and University College Libraries, has been opened in 42-45 Gordon Square. Progress is also being made in avoiding duplication of purchases between libraries, and the Provost and Librarian have been participating in the discussions of the University Working Party on Rationalisation of Library Resources in Bloomsbury, looking towards the strengthening of those subject areas in which University College Library has always maintained excellent collections.

Services to readers are operating at a reduced level due to the reduction in numbers of Library staff, and efforts have been directed towards long-term measures to make the best use of the staff available. During the session preparations began for the Library's entry in Autumn 1984 into the GEAC automated borrowing system, and benefits — again benefits through co-operation — are already being seen in the Library's participation in the University of London Shared Cataloguing System. The most serious effects of staffing

shortages are likely to be felt in opening hours, and the Library's policy has to be directed towards a reduction in the number of manned service points, concentrating staff resources rather than spreading them thinly, in order to continue a reasonable level of service. The College owes a debt of gratitude to members of Library staff who have adapted their range of duties in response to the early retirement of several of their colleagues.

Public Lectures

The following public lectures were among those arranged by the College during the session: Banister Fletcher Lectures by Professor Amos Rapoport (University of Wisconsin at Milwaukee) on (i) 'Vernacular Design', (ii) 'Design for the Third World' and (iii) 'Meaning in Architecture'; First Annual Lecture in Biochemical Engineering and Biotechnology by Professor J. Schell (Max Planck Institut für Züchtungsforschung, Cologne) on 'Prospects for Plant Cell Biotechnology'; Commonwealth Fund Lecture in American History by Professor Richard S. Dunn (University of Pennsylvania, Philadelphia) on 'Brer Rabbit and Brer Wolf: Another Look at American Slave Life'; Current Legal Problems Lectures by (i) Mrs Nicola Lacey (Lecturer in Law, UCL) on 'Dangerousness and Criminal Justice: The Justification of Preventive Detention', (ii) Professor D. N. MacCormick (University of Edinburgh) on 'Jurisprudence and the Constitution', (iii) Professor B. A. Hepple (Professor of English Law, University of London) on 'Judging Equal Rights' (Inaugural Lecture), (iv) The Rt Hon Sir John Donaldson (The Master of the Rolls) on 'The Revolution in Commercial Arbitration — 1979 and After', (v) Professor Norman Palmer (University of Reading) on 'Ambulatory Bailment', (vi) Mr Francis Reynolds (Fellow of Worcester College, Oxford) on 'Practical Problems of the Undisclosed Principal Doctrine'; Durning-Lawrence Lectures in the History of Art by Mr Charles Harrison (Open University) on 'Art and Its Languages: The Last Twenty Years' (six lectures); Freud Memorial Lectures in Psychoanalysis by Madame Janine Chasseguet-Smirgel on (i) 'Perversion and the Universal Law', (ii) 'Perversion as Exemplified in three "Luciferian" Characters', (iii) 'Narcissism and the Psychology of Groups' and (iv) 'Aestheticism, Creation and Perversion'; S. V. Keeling Memorial Lecture in Greek Philosophy by Professor Gregory Vlastos (University of California at Berkeley) on 'Socrates and Athenian Democracy'; Neale Lecture in English History by Dr Joan Thirsk (Oxford) on 'New Style Demesne Farming

in Early Modern England'; Lord Northcliffe Lectures in Literature by Professor Graham Hough (Emeritus Professor of English, Darwin College, Cambridge) on 'The Mystery Religion of W. B. Yeats' (three lectures); Rickman Godlee Lecture by Mr Anthony Burgess on 'Utopias and Cacotopias'; Smeed Memorial Lecture by Professor Robert Herman (University of Texas at Austin) on 'Characterising Traffic Conditions in Urban Areas'; Smith, Kline and French Laboratories Lecture in the Allied Health Sciences by Professor Bert W. O'Malley (Texas Medical Center, Houston) on 'Structural Considerations in the Regulation of Eucaryotic Gene Expression'; William Townsend Lecture by Mr Anthony Caro on 'Space, Place and Sculpture'.

Inaugural Lectures were given by Professor J. H. Callomon (Chemistry) on 'Some Excursions in Space and Time', Professor R. J. H. Clark (Chemistry) on 'Perspectives in Inorganic Chemistry', Professor J. L. Culhane (Physics) on 'X-ray Astronomy — A New Insight on the Universe', Professor R. M. Davies (Bioengineering) on 'Bloomsbury Bioengineering', Professor A. P. Dawid (Probability and Statistics) on 'Thinking About Probabilities: a Sense of Proportion', Professor M. C. W. Evans (Plant Chemistry) on 'One Sun is Enough', Professor J. R. Forrest (Electronic Engineering) on 'Opto-Electronics: What Light in Yonder Circuit Grows?', Professor P. G. Isaacson (Morbid Anatomy) on 'Coeliac Disease and Malignant Histiocytosis of the Intestine: A Histopathological Quest', Professor H. G. T. Maehler (Papyrology) on 'Egypt Under the Last Ptolemies', Professor B. N. C. Prichard (Clinical Pharmacology) on 'Your Blood Pressure, Why Bother?', Professor W. L. Twining (Jurisprudence) on 'Evidence and Legal Theory' and Professor D. Wilkie (Microbial Genetics) on 'The Work of a Mitochondriac'.

Assembly of Faculties

On 22 June 1983, the College once again held an Assembly of Faculties. In contrast to 1982, the weather was fine and tea was taken on the lawns to the obvious enjoyment of all those present. The North and South Cloisters were filled with exhibits showing various aspects of College activities; the Flaxman Gallery contained an exhibition entitled 'The Genetics of Twinning'; exhibitions of student work were on view in the Slade School of Fine Art, and the Bartlett School of Architecture and Planning; the Strang Print Room, the Flinders Petrie Museum of Egyptology and Campbell House were open to visitors. In addition, the new College film was shown during the afternoon.

Schools Conference

Headteachers and other representatives from seventy-four schools and sixth-form colleges were welcomed to the College for the seventeenth annual Schools Conference on 22 and 23 April 1983.

The proceedings opened with an introduction to the College by the Provost, followed by talks entitled 'Is there an accountant in the house?' by Professor D. W. J. Johnson, and 'All is but a woven web of guesses — or is it? by Professor D. Bishop.

During the two days of the Conference small groups of teachers visited a number of departments where they met College staff for discussions about admissions and other academic matters. As in previous years the guests were accommodated in Ramsay Hall thus experiencing at first hand the quality of the College's student residential facilities.

The 1983 Conference, the last to be hosted by Dr J. W. Fox as Schools Liaison Officer, once again proved popular with schools' representatives who were particularly impressed by the large number of College participants.

Association of Friends of UCL

During 1982-83 the Friends of University College gave financial support to the following: the Prankerd-Jones Memorial Fund 'to provide financial assistance for overseas students to study medicine and the arts at UCL and for UC students to study overseas' (£2,000); University College Opera productions of Chabrier's 'Gwendoline' (£500); Spohr's 'Faust' (£300); the conversion of a cloakroom area in the entrance foyer of the Engineering Building into a toilet for the disabled (£1,400); the creation of a landscaped garden behind 16-18 Gordon Square (£2,618); the purchase of a video recorder/player for University College London Union (£399), and of a video cassette recorder and monitor for the preservation of the Film Society's Archive films (£700); the provision of two telephone amplifying headsets for the use of the College's partially deaf students (£20); the purchase of garden chairs for Campbell House (£150). In addition it was decided that the funds set aside for the Association's corporate contribution to the College's 150th Anniversary Appeal (£20,000) would be used to finance the structure and furnishing of a reception and information room to be known as the 'Friends' Room', on the ground floor of the new Gower Street extension.

Since their foundation in 1952 the Friends have made grants to the College and to the Union totalling more than £117,000. The Friends

continue to be asked for help in providing the facilities that contribute so much to the quality of life in the College for students and staff, particularly in these times of financial stringency. If they are to continue to assist in this manner and to this extent, it is vital that both the levels of membership and of subscriptions and donations be increased.

SUPPLEMENT

HONOURS AND DISTINCTIONS

In the New Year Honours 1983 Dr J. D. N. Nabarro, Chairman of the Joint Consultants Committee, lately Consultant Physician, Middlesex Hospital, Fellow of the College, was created Knight Bachelor. The KCMG was conferred on Sir Kenneth Cavendish Christofas, lately Director-General, Secretariat of the Council of Ministers, European Community, Brussels, Fellow of the College. The CBE was conferred on the following: Professor E. W. Handley, Professor of Greek, UCL; Dr J. W. Miller, Film director and producer, British Broadcasting Association, Fellow of the College; Professor J. E. C. T. White, Durning-Lawrence Professor of History of Art, UCL; and on Professor G. P. Youngman, Landscape Architect, former member of staff of the Bartlett School of Architecture. The OBE was conferred on Mr H. M. Nixon, Honorary Research Fellow in the School of Library and Archive Studies, sadly now deceased.

In the Queen's Birthday Honours the following were created Knights Bachelor; Professor R. L. F. Boyd, Professor of Physics, UCL, and Director of the Mullard Space Science Laboratory, former student of the College (Mathematics); and Professor S. H. Spender, formerly Professor of English, UCL, poet and critic. The CBE was conferred on Professor E. A. Ash, Pender Professor of Electrical Engineering, UCL, and on Professor O. L. Wade, Dean of the Faculty of Medicine and Dentistry, University of Birmingham, former student of the College (Anatomy). The MBE was conferred on Mr H. E. Tompkins, a member of the technical staff of the Biochemistry Department. The BEM was awarded to Mrs Bedelia Casey a member of the domestic services staff, for long and dedicated service to the College, regrettably Mrs Casey has since died.

In the General Election held in June 1983 several former students were elected or re-elected as Members of Parliament: R. Alexander (Laws) for Newark; P. Archer, QC (Philosophy) for Warley West; T. Davis (Laws) for Birmingham Hodge Hill; R. Hicks (Geography) for Cornwall south-east; B. John (Laws) for Pontypridd; and I. Stanbrook (Political Economy) for Orpington.

The title of Honorary Fellow was conferred in 1982-83 on the Right Honourable Lord Denning, sometime Master of the Rolls and Visitor of the College; Sir Hugh Casson, President of the Royal Academy; and on Mr J. R. Stewart, Principal of the University of London.

The following were elected Fellows of the College in 1982-83: Professor B. J. L. Berry, Director of the Laboratory for Computer Graphics and Spatial Analysis, Graduate School of Design and Fellow of the Institute of International Development, Harvard; Sir Ellis E. I. Clarke, President of the Republic of Trinidad and Tobago; His Excellency Judge Taslim O. Elias, Vice-President of the International Court of Justice, The Hague; Professor R. Marian Hicks, Professor of Experimental Pathology, The Middlesex Hospital Medical School; Dr P. H. Kemp, Reader in Fluid Mechanics, University College London; Mr H. R. Oakley, Senior Partner, Watson Hawksley Consulting Engineers; Miss Jean F. H. Orr, formerly Director, Office of Manpower Economics; Professor H. P. Rang, Professor of Pharmacology and Head of Department, University College London; Dr D. S. Ridley,

Consultant Pathologist to the Hospital for Tropical Diseases, London, Mr E. Uglow, Painter, Slade School of Fine Art.

Important appointments announced during the session included the appointment of Professor J. R. Hale as Commissioner on the Museums and Galleries Commission and to the Commissioners of the Great Exhibition of 1851. Professor B. A. Hepple was appointed Chairman of the SSRC Monitoring of Labour Legislation Panel, part-time Chairman, Industrial Tribunals (England and Wales) from 1 October 1982, and a member of the Bureau of the International Institute for Temporary Work, Brussels; Professor J. L. Jowell continued as Chairman of the Social Science Research Council's Law and Social Sciences Committee, and Vice-Chairman of the Government Committee; Professor Randolph Quirk, Vice-Chancellor of the University and former Quain Professor of English Language and Literature at the College was appointed a member of the Board of the British Council; Professor R. W. Rideout was appointed International Labour Office Expert in Labour Legislation, Republic of the Gambia, to prepare a draft Labour Code; Mr I. H. Dennis continued his membership of the Law Commission Codification Team and the Society of Public Teachers of Law Criminal Law Reform Sub-Committee.

Elections to academies and learned societies included: the election of Professor A. T. James, Fellow of the College, to Fellowship of the Royal Society, Professor W. Johnson, and Professor J. W. Mullin, both Fellows of the College, to the Fellowship of Engineering; Professor T. J. Biscoe as a Fellow of the Royal College of Physicians; Dr T. D. Whittet, Fellow of the College, as Master of the Worshipful Society of Apothecaries of London, and re-election as President of the History of Medicine section of the Royal Society of Medicine; and Dr G. T. Martin as a Corresponding Member of the German Archaeological Institute.

Honorary degrees and appointments were conferred on members of the College as follows: the PhD of the University of Lund on Professor N. F. Dixon; the DLitt of the University of Sheffield on Professor Ruth Glass; the DLitt of the University of Leicester on Professor Sir Lawrence Gowing; an honorary doctorate of the Catholic University of Nijmegen on Professor Randolph Quirk who was also appointed an Honorary Master of the Bench of Gray's Inn; the doctorate of Humane Letters honoris causa of the Bard College, New York State on Emeritus Professor A. D. Momigliano; the DSc of Queen's University, Belfast on Professor M. J. Seaton.

Other notable honours included: the award to Professor A. P. Dawid, of the ScD of the University of Cambridge; the appointment of Professor M. A. Screech as a Chevalier dans l'Ordre national du Mérite; the appointment of Professor W. L. Twining as a Visiting Distinguished Professor of Law, University of Miami Law School, and as President of the United Kingdom Association for Legal and Social Philosophy; and the election of Ms Dawn Oliver as an Associate of Newnham College Cambridge. Mr N. B. Harte was appointed Historian to the Worshipful Company of Leathersellers. Professor A. J. Fourcin was awarded the Edith Whetnall Medal of the Royal Society of Medicine, Section of Otology; Sir James Lighthill the Gold Medal of the Institute of Mathematics and its Applications; Professor M. J. Seaton the Gold Medal of the Royal Astronomical Society; and Emeritus Professor A. Maccoll an Emeritus Fellowship of the Leverhulme Trust. A former student

of the College (French). Professor R. E. Asher, was elected a Fellow of the Kerala Sahitya Akademie and awarded a gold medal for valuable services to Malayalam language and literature.

APPOINTMENTS

At the start of the session Professor M. G. Audley-Charles, Professor of Geology at Queen Mary College, was appointed to the Yates-Goldsmid Chair of Geology and to the Headship of the Department. Professor J. L. Jowell was appointed Head of the Department of Laws. Professor R. J. Loewe was appointed to the Goldsmid Chair of Hebrew and Jewish Studies and to the Headship of the Department. Professor N. Woolf, Head of the Department of Histopathology at The MHMS, was appointed Chairman of the new UCL/MHMS Joint Department of Histopathology. Dr J. L. Watling was appointed Head of the Department of Philosophy from January 1983, and Professor A. P. Dawid Head of the Department of Statistical Science from April 1983.

Professor B. A. Hepple, a full-time Chairman of Industrial Tribunals (England and Wales) and formerly Professor of Law at the University of Kent at Canterbury, was appointed to the Chair of English Law from October 1982. Professor W. L. Twining, Professor of Law at Warwick University, was appointed to the Quain Chair of Jurisprudence from January 1983. Dr P. G. Isaacson, Reader in Histopathology at the University of Southampton, was appointed to the Chair of Morbid Anatomy, tenable within the Joint School of Medicine, from October 1982, and Head of Histopathology on the College site.

Mr W. J. Corlett was re-appointed Acting Head of the Department of Political Economy for the session 1982-83.

The following became Professors by conferment of title: Dr R. J. H. Clark (Chemistry); Dr A. P. Dawid (Probability and Statistics); Dr M. C. W. Evans (Plant Chemistry); Dr J. R. Forrest (Electronic Engineering); Dr R. D. Martin (Physical Anthropology); Dr D. Wilkie (Microbial Genetics); and the following Readerships were conferred: Dr B. Culshaw (Electronic Engineering); Mr I. H. Dennis (English Law); Mr J. A. Graham-Campbell (Medieval Archaeology); Dr J. I. Israel (History); Dr D. J. Miller (Physics); Dr R. E. Olver (Paediatrics); Dr B. P. Roberts (Chemistry); Dr M. J. J. Rowlands (Anthropology); Dr J. C. Wells (Phonetics).

The following Visiting Professors were appointed during the session: Mr Laurence Clarke, Assistant Technical Director of GEC (Computer Science); Professor S. Lindal, Faculty of Law, University of Iceland (Scandinavian Studies); Mr M. Meek, a Technical Director of British Shipbuilders (Mechanical Engineering); Dr J. Morton, University don and a consultant (Psychology); Professor A. Rapoport, Department of Architecture, University of Wisconsin — Milwaukee (Architecture); Professor J. M. Ritchie, Yale Medical School (Pharmacology).

The following changes took place in Faculty appointments: Professor M. W. Swales and Professor R. Wilson became respectively Dean of the Faculty of Arts and Dean of the Faculty of Science. Professor R. E. Allsop became Vice-Dean of the Faculty of Engineering, and Professor N. F. Watson Vice-Dean of the Faculty of Environmental Studies. Professor D. V. I. Fairweather became Dean of the Faculty of Clinical Sciences, Professor A. S. Prophet and

Professor A. G. Alexander being appointed respectively Vice-Dean (Medical) and Vice-Dean (Dental); Dr R. F. Armstrong was appointed Sub-Dean and Tutor to Clinical Students.

Mr C. E. Gimson was appointed Senior Tutor, and Mr D. A. L. Morgan, Tutor to Arts Students.

Mr F. J. Friend, BA was appointed College Librarian with effect from 1 October 1982. He had been Librarian at the University of Essex since 1978 and previously Deputy Librarian at the University of Nottingham.

Other appointments and special lectureships during the year were as follows: Mr P. H. Richardson was appointed Senior Lecturer at St Thomas's Hospital Medical School from September 1983; Professor T. J. Biscoe was appointed Honorary Secretary of the Research Defence Society; Professor W. E. Butler served as co-chairman of the Anglo-Soviet Symposium on the Law of the Sea and Merchant Shipping held in Moscow; Dr S. A. Fender was appointed Editor for Literature of the *Journal of American Studies;* Mr R. C. Austin was appointed to assist in drafting a model Data Protection Bill published by the National Council for Civil Liberties, and briefed Members of Parliament on the Data Protection Bill 1982; Mr M. D. A. Freeman was Academic Director of the W. G. Hart Legal Workshop on 'The Family, the State and the Law in Britain Today', and was appointed Editor of the *Annual Survey of Family Law.* Professor Sir Andrew Huxley was invited to deliver the Romanes Lecture at Oxford on 24 February 1983 entitled 'Biology, the Physical Sciences and the Mind', and Dr Wendy Davies was invited to give the O'Donnell lectures in Celtic Studies at Oxford during 1982-83. Mrs V. Korah became a Member of the Joint Bar/Law Society Working Party on Competition Law, and a member of the Education Committee of the Bar Association for Commerce, Finance, and Industry.

RETIREMENTS

Professor Sir Robert Boyd retired in September 1983. He joined the Mathematics Department at UCL in 1946 and transferred to the Physics Department in 1950 as an ICI Research Fellow. He was appointed a lecturer in Physics in 1952. He pioneered space research in the UK with a group that he set up at UCL in 1954. The Mullard Space Science Laboratory at Holmbury St Mary, which was established under his directorship in 1965, develops instrumentation and analyses data from satellites such as the Ariel series and currently for the Shuttle Space Laboratory and the European mission to Halley's Comet in 1986. He was awarded a CBE in 1972.

Professor Peter Foote retired in September 1983 after serving for twenty years as Director of Scandinavian Studies. He first joined the English Department at University College as an assistant in 1949, and was then successively Assistant Lecturer, Lecturer, and Reader in Old Scandinavian in the Department of Scandinavian Studies, whose vigorous Director at this time was the Quain Professor of English, Hugh Smith. In 1963 he was given the title of Professor of Old Scandinavian and in 1974 appointed to the newly-established Chair of Scandinavian Studies. The years 1963-83 have seen unprecedented growth in the Department: the staff has more or less doubled, and there has been a fourfold increase in student numbers and a dramatic expansion of teaching and research. The zeal, resourcefulness and sheer hard work required to bring about these cheering developments have

all come from Peter Foote, and it is he we have to thank for the establishment at University College of theforemost department of Scandinavian in the country and an internationally recognised centre of Scandinavian learning. Learning is a key word. For in spite of this splendid legacy, it would be wrong to think that Peter Foote's chief talent and interest have been the building up and running of a department. He is first and foremost a scholar, and his many and weighty contributions to the study of Viking-age and medieval Scandinavian language, literature and culture, together with membership of numerous learned societies, bear eloquent testimony to his erudition, keen intellect and high professional standing. Amazingly, Peter Foote also found time to run the Viking Society for Northern Research, of which he was Joint Honorary Secretary from 1956 to 1983, and to edit (with others) its journal, *Saga-Book,* from 1952 to 1976. In addition he took a keen interest in the fortunes of the Scandinavian library collection at University College, the health of which he rightly considered an essential prerequisite for the pursuit of worthwhile scholarship in the field. In spite of all this, he seldom gave the impression of being busy; he devoted much time to social activities, both of a pleasurable and onerous nature, and always showed great courtesy, patience and humanity in dealing with the problems of colleagues and students alike.

Professor A. C. Gimson, who retired in September 1983, had a College career spanning forty-seven years. An undergraduate in the French Department in 1936 he returned from six years of war in 1945 to a lectureship in the Phonetics Department, became a Reader in 1961, Professor in 1966 and Head of Department from 1971 until his retirement. In 1962 he published his *Introduction to the Pronunciation of English* which remains the standard work. On the death of his mentor, Professor Daniel Jones, he took over the sole editorship of the latter's *English Pronouncing Dictionary* and undertook a massive revision which leaves it as an incomparable record of contemporary pronunciation. In 1950 he became Secretary and Treasurer of the International Phonetic Association and editor of its journal, then the *Maître Phonétique,* now the *Journal of the IPA,* a revolutionary change which replaced the somewhat arcane format of purely phonetic transcription by plain orthography, with consequent wider accessibility. His services to the College (on committees; in the merging of the Phonetics and the Linguistics Departments; and in the establishment of the degree in Speech Sciences, among many others) were justly acknowledged by his election in 1975 as a Fellow of the College. His wisdom, his dedication to the College, to his subject, to his staff and to his students, his total inability to say 'no' to any invitation or challenge, all of these graced by a light-hearted, light-handed manner, have left him with a host of friends world-wide. Those of them close to home will expect for a long time yet to be sustained by his presence and entertained by his wit.

Professor Sir Andrew Huxley, who retired in September 1983, was born in Hampstead, London, on 22 November 1917. He was educated at University College School, and Westminster School, and Trinity College, Cambridge. In 1939 he started research with Sir Alan Hodgkin and very soon published an important paper in *Nature* which showed that the nerve impulse arises at the surface membrane of a nerve fibre and that the potential change during the impulse overshoots the resting membrane potential. This research was interrupted by the onset of World War II. After operational research from

1940 to 1945 Andrew Huxley returned to Cambridge as a Demonstrator in Physiology having been elected a Fellow of Trinity College in 1941. He stayed at Cambridge until 1960 and during the post-war years until 1952 carried out the experiments with A. L. Hodgkin which led to their Nobel Prize in 1963 for Physiology or Medicine, shared with J. C. Eccles. Their research followed up the striking reversal of the membrane potential observed in 1939 to lead to their seminal work on the physicochemical phenomena which underlie excitation and conduction in nerve fibres. Since 1952 he has concentrated his research on the mechanisms of muscle contraction, developing optical, electrical and mechanical techniques for making precise observations on isolated muscle fibres. In 1960 he gave up his Readership in Experimental Biophysics in Cambridge to take up the Jodrell Professorship of Physiology and to become the Head of the Department of Physiology at UCL. His research in muscle physiology has added supreme excellence in science to the already great tradition in the study of muscle at UCL. In 1969 he was appointed to a Royal Society Research Chair at UCL and in 1980 he became President of the Royal Society. It is fortunate that he will continue to work in the Physiology Department. Always approachable and willing to listen to the least experienced, his formidable intellectual powers are to be cherished. Retirement is an administrative formality not a fact.

Professor R. E. Jennings retired from the Department of Physics and Astronomy after thirty-seven years. After graduating from King's College in 1941, he joined the Admiralty Signals Establishment for the remainder of the war. He then had a year teaching at the Royal Grammar School, Guildford, and joined UCL as an Assistant Lecturer in 1946. He was mainly responsible for teaching thermodynamics and his research interests included the development and use of Microtron high energy accelerators. In the late 1960s he became interested in infra-red astronomy and during 1982-83 he was the project leader for the Infra-red Astronomical Satellite (IRAS) which discovered the IRAS-ARAKI-ALCOCK Comet this year.

Professor Arthur Prophet's career began at the University of Manchester where he qualified and subsequently spent a total of nine years, interrupted by war service from 1941 to 1946 as a Surgeon Lieutenant (D) in the Royal Naval Volunteer Reserve. After Manchester he spent two years at Queen's University of Belfast and the Royal Victoria Hospital before his appointment to the Chair in Dental Surgery at UCH Medical School in 1956. At the same time he was also appointed Director of Dental Studies and played a leading role in planning the new UCH Dental Hospital and School which was opened in 1963. During his time as Director the annual intake expanded to fifty students and he developed the teaching and research to the high level it enjoys today. In 1974 the post of Director of Dental Studies was discontinued and Professor Prophet became the first Dean of Dental Studies. In 1977 he became the first dentist to be elected Dean of UCH Medical School; and in 1980 he was appointed Dean of the Faculty of Clinical Sciences when UCH Medical School became part of University College on reunification. During his five years as Dean he succeeded in sustaining academic medicine at a time of considerable upheaval and increasing financial stringency; and in 1982, when his term of office as Dean ended, he became Vice-Dean of the Faculty. A man of compassion and integrity, Arthur Prophet has had a long and distinguished career. In 1980 he was awarded the CBE, a fitting tribute to his contribution to Dentistry and to UCL.

Professor B. C. Vickery, who retired in September 1983, joined the College as Professor of Library Studies and Director of the School of Library, Archive and Information Studies ten years earlier. He was born in Sydney, Australia. After reading chemistry at Oxford, he worked at an ordnance factory of the Ministry of Supply during the Second World War. From 1946 to 1960 he was the Librarian of the Akers Research Laboratories of ICI. It was there that he began his research in information science, particularly retrieval systems. He was Deputy Director of the (then) National Lending Library for Science and Technology from 1960 to 1964, Librarian of UMIST for the next two years, then Head of Research and Development at Aslib prior to joining the College. During his period at College he has greatly expanded teaching in the areas of computer applications and communications technology, and also in techniques in the investigation of the evaluation of libraries and information services. He has been an extensive publisher both of research papers and (now classical) monographs, some of the latter already in their second edition. Professor Vickery will maintain contact with the Department as an Honorary Research Fellow and it is anticipated that he will continue to contribute to teaching through the development of practical aids for demonstration in systems and automation studies.

Mr G. F. Arnold entered the French Department as a student in 1938 and spent the whole of his academic career within the College. He joined the Phonetics Department as an Assistant Lecturer in 1947 and was promoted to a Readership in Phonetics in 1966. His original interest lay in the French language, and much of his early teaching was concerned with the phonetics of French; but he soon shouldered a heavy teaching load in English and general phonetics. He became an authority on the stress and intonation of English, and his publications in these areas are widely known and highly appreciated. He will chiefly be remembered, however, as a magnificent lecturer and teacher of both undergraduates and postgraduates, British and foreign students. A colleague without angularities who could always be relied upon to step in whenever needed, he was deeply involved in many of the more important administrative functions and committees of the College and the AUT, becoming Tutor to Arts Students in 1973 and Senior Tutor in 1979. In these duties he displayed the same meticulous care for detail and the interests of students which marked all his academic activities. Fittingly, in 1979 he was elected a Fellow of the College. During the Department's rapid expansion of the last thirty years, Gordon Arnold provided a steadying, good-humoured influence which, while looking to the future, reminded us of our debt to the past.

Mr W. J. Corlett retired from his post as Reader in Political Economy in September 1983. He joined the Department as a Lecturer in 1948 from the University of Liverpool, and was appointed to a Readership in 1959. His main professional interests lay in quantitative economics and in research into aspects of industrial change: his study of *The Economic Development of Detergents* was published in 1958. For a long period he played the leading role in the teaching of quantitative economics, which came to occupy an increasingly important part of the Department's course offerings; and from October 1980 until his retirement he was Acting Head of Department. For many colleagues within the College but outside Political Economy, he will perhaps be especially remembered for his masterly conduct of business as

Chairman of the Board of Examiners for the various degrees involving economics. He presided over examiners' meetings with an unfailing combination of clarity, understanding, command of detail and scrupulous fairness. These same qualities were brought to bear in his handling of departmental affairs, and in all his relations with those with whom he worked. His fellow-economists will find it hard to adjust to a situation in which, after so long an association with the Department, they can no longer readily turn to him for help and advice.

Dr Arthur Jarrett retired on 31 March 1983 as Reader and Head of Department of Dermatological Histology in the Faculty of Clinical Sciences. His career began in 1943, when he was appointed as House Physician at Queen Elizabeth Hospital, Birmingham. From 1944 to 1947, he served in the Royal Army Medical Corps, both in Europe and the Far East, during which time he developed an interest in Dermatology. In 1952 he came to University College Hospital as a Registrar in Dermatology and two years later was appointed as Research Assistant in Dermatology at University College Hospital Medical School. From October 1959, when he was appointed to the Readership in Dermatological Histology — a unique post which had originally been established for the late Otto Freudenthal — Dr Jarrett set about a number of innovative studies, establishing a research group which flourished into a major Dermatological Research Department. He made many important contributions to the study of skin histochemistry and exerted an important influence on dermatological research. He also edited an influential series of volumes on *The Physiology and Pathophysiology of the Skin*. Dr Jarrett's most significant work was on abnormalities of keratinisation and he was the first to establish the improvement of psoriasis by treatment with retinoids.

Dr P. H. Kemp, Reader in Fluid Mechanics in the Department of Civil and Municipal Engineering, retired on 30 September 1983. He was an undergraduate student in the same department from 1946 to 1948 following war service in the Royal Artillery. He joined the academic staff as Lecturer in 1951 and was promoted to Senior Lecturer in 1964 and Reader in 1973. Dr Kemp played the major role in developing the present hydraulics laboratory facilities for civil engineering teaching and research following the construction of the new engineering building. He was an outstanding teacher and internationally recognised for his experimental researches on beach erosion, turbulence and wave action on solids and loose boundaries. Throughout his thirty-two years on the academic staff Dr Kemp has devoted himself passionately and without self-interest to the well-being of his students, his department and the College. In particular he has made a major contribution to maintaining the vitality of the Old Students' Association, in which he has been Member of Council, Hon. Secretary, Vice-President and President over the last nineteen years. In 1983 he was elected a Fellow of UCL in recognition of his extensive contributions to his discipline and to the life of the College. Fortunately, his jovial presence and good companionship will not be altogether lost since he will be continuing to work in the Department of Civil and Municipal Engineering as an Honorary Research Fellow.

Mr J. J. Messing retired in September 1983 after a long and distinguished career in the Dental School. He graduated in dentistry, with honours, from the University of Durham in 1954 and worked in various dental hospitals

before being appointed to the staff of UCH Dental School as Lecturer in Operative Dentistry in 1954. In 1950 he became a Fellow in Dental Surgery of the Royal College of Surgeons of England by examination. He was a very able clinician and teacher whose skills were admired by generations of UCL students. He was made an honorary Consultant in the National Health Service in 1971. The title of Reader in Conservative Dentistry was conferred on him in 1976 by the University of London. In 1975 Jack Messing was appointed as Postgraduate Dental Tutor in the Dental School. He has published many original articles in the dental literature and is the joint author of a standard textbook on *Operative Dental Surgery*. He had a genius for invention and introduced many novel techniques that have found a wide use in modern dental practice. He will be greatly missed in the Dental School.

Mr J. E. Pascoe retired in September 1983. Already qualified as a pharmacist, he came to UCL in 1946 and gained the BSc Degree in Physiology with First Class Honours. In 1950 he was appointed Lecturer in the Department of Physiology under Professor G. L. Brown. This was the start of a fruitful period of research together on synaptic transmission in autonomic ganglia. In 1964 Jim Pascoe received due recognition for his research by being appointed Reader in Physiology. Prior to that he had been awarded a Rockefeller Fellowship to work with Ragnar Granit at the Karolinska Institute in Stockholm on the control of motor output. This set a pattern for his future research on the central nervous control of the muscle spindle sense organ. His contributions to Physiology and his Department have been outstanding. He trained many postgraduate students as well as acting as Tutor and postgraduate advisor. Together with Professor George Dawson in 1970 he began the development of mini- and micro-computers in physiological research at UCL. His retirement will not stop his expert contributions in this field. Finally, during the last six years, as a committee member of the Physiological Society, he liaised with Parliament, the Research Defence Society, Industry and the Council of Europe on the formulation of new legislation concerning experiments with live animals. This has been unstinting effort on behalf of all scientists engaged in animal experimentation.

Mrs Antonia Duffy (A. S. Byatt), Senior Lecturer in the English Department, took early retirement at the end of 1982-83 in order to devote herself more fully to her writing. After graduating from Cambridge, she published two novels, *Shadow of a Sun* (1962) and *The Game* (1967) and a critical study of Iris Murdoch, *Degrees of Freedom* (1965). Before coming to this College in 1971, she was a part-time Lecturer in Liberal Studies at the Central School of Art and Design, taught in the University Extra-Mural Department and wrote *Wordsworth and Coleridge in their Time* (1970). After joining the English Department she wrote her richest and most ambitious novel, *The Virgin in the Garden* (1978) — the first of a projected trilogy, as well as editing George Eliot's *The Mill on the Floss* (1981). She has also written a number of prefatory critical essays to novels by Elizabeth Bowen, Willa Cather and Grace Paley for Penguin and the Virago Press, as well as regularly broadcasting and reviewing. In 1973, she was on the Booker Prize jury. In College, Mrs Duffy was a particularly successful, stimulating and conscientious teacher. She gave lectures and seminars on a wide range of topics, Romantic, Victorian,

American and Modern, and was extraordinarily generous of her time, enthusiasm, and sympathy to many students. Recently she was the Department's Admissions Tutor. Both her substantial contribution to the day-to-day life of the Department and her intellectual stimulus and energy will be much missed by students and staff alike.

Mr R. J. Fisher, who retired in September 1983, was accepted as a student at the Bartlett School in 1939. The war intervened and he was unable to take up the unconditional offer until 1946, having meanwhile served in the Royal Indian Artillery. Bob Fisher was a distinguished student, winning the Donaldson medal and being sent to the Beaux Arts School of Architecture in Paris before graduating, a sojourn which began a long love affair with France and, always in moderation, wine. As a teacher of design and of building construction since 1954 he was unsurpassed and will be greatly missed. As Sub-Dean of the Faculty of Environmental Studies his patience, understanding, knowledge and good humour will be difficult to replace, and his overall grasp of the needs of architecture students past and present will be missed both by his colleagues at the Bartlett and by the architectural profession whose committees he has served so well. His election to the Fellowship of the College in 1981 was a well deserved honour which gave his friends great pleasure.

Dr J. W. Fox joined the College as an undergraduate in 1937 and graduated with first-class honours in 1940. After five years of war service in the Ministry of Supply, he rejoined the Physics Department. Although he undertook research in both classical and atomic physics, Bill Fox will be remembered for his devotion to the teaching of undergraduates. The Physics Department, and subsequently the Department of Physics and Astronomy, has for many years depended on his leading role in these activities. Through the years, he has served the College in many other ways, the most noteworthy being as Schools Liaison Officer since 1974. He was President of the OSA from 1979 to 1981 and was elected a Fellow of the College in 1980.

Dr G. R. Heyland, who retired this year, was a pupil at University College School from 1933 to 1940 and then studied Physics at UCL in Bangor. In 1942 he was appointed temporary Assistant Lecturer by Mr Orson Wood to assist teaching the Radio Physics course. In December 1944 he returned to the College to pursue research in cosmic ray physics with Dr W. E. Duncanson. In 1968 he joined forces with Professor T. C. Griffith to pursue a remarkably productive series of researches into the behaviour of positrons in gases.

Mr James Longmore retired this year from the Bartlett School of Architecture and Planning after eighteen years of service. A physicist, he specialised in the artificial environment of buildings working for many years as a member of the Architectural Physics Division of the Building Research Station (now the Building Research Establishment, Department of the Environment) where the foundations of the subject were largely laid in the 1950s and 1960s. He joined the Bartlett School at a time when environmental physics began to form an integral part of architectural education and he has played a leading role in its development in the Department. More recently his major interests have included the climatology of tropical countries and the special controls needed in tropical buildings. James Longmore's services and support will be greatly missed: fortunately, he will be continuing as a part-time lecturer in the School until 1985.

Mr T. Støverud's student career at the University of Oslo was interrupted by military service in 1939-40, by a spell in a concentration camp in 1943-44, and by further military service after the liberation of Norway in 1945. In 1947, before completing his degree, he came to the University of Durham, in the Newcastle half, to be Lektor in Norwegian. From there he went to the Sorbonne, 1949-50, and in the latter year finally graduated, with outstanding results, from Oslo. He then had a Norwegian research studentship for two years and studied in the Department of Phonetics in UCL (with a Class I in his final diploma). As luck would have it, the W. P. Ker Lectureship in Norwegian in the Department of Scandinavian Studies fell vacant just at that time, and his appointment was a happy matter of course. He became Senior Lecturer in 1967. In the years 1977-81 he was seconded from the Department to be Cultural Attaché at the Norwegian Embassy in London. Torbjørn Støverud has been a brilliant teacher, not least because of his cultivation of many arts, particularly music and live theatre, in addition to the literary studies that have inevitably been his main concern. He has had much experience as a broadcaster and is a pioneer in providing high-quality recorded material for teaching purposes. His energy and talents have been freely at the disposal both of the College as a whole and of the public at large, through the Anglo-Norse Society and other groups throughout the country. It is good news that Torbjørn Støverud will stay in London and as Honorary Research Fellow continue to be involved in the work of the Department of Scandinavian Studies.

After completing his PhD at Imperial College Dr V. D. Long joined the staff there as a Lecturer in Chemical Engineering and over a period of ten years established an international research reputation in the field of combustion technology. He then made an abrupt change of direction and moved into industry as Process Engineering Section Leader at Brooke Bond's Research Laboratories. There he became an expert on the large-scale extraction of tea flavours in which he applied sound chemical engineering principles to meet the demands of that highly critical customer, the British tea drinker. In industry Victor Long missed contact with students and after four years joined the Department of Chemical Engineering at UCL where he has remained for thirteen years. A devoted teacher with infinite patience and a passion for thermodynamics, he has encouraged a long line of students to think logically through all the complexity of real engineering problems. Many experienced engineers have reason to be grateful to him for the scholarly rigour that lies beneath their practical surface. He has chosen to take early retirement but will return part-time to make sure his subject is not neglected.

Mr T. P. Roberts, a distinguished lecturer in the Department of English, has retired after eighteen years in the College. He will be greatly missed. After seven years as a foundation scholar at Highgate School, Patrick Roberts went up to Christ Church, Oxford. After the war he returned to his studies before taking up an appointment as staff tutor for Oxford University. Since his appointment subsequently at UCL in 1965 Patrick has been a very popular figure in the College. His particular contributions to the academic distinction of his department have been a highly praised book, *The Psychology of Tragic Drama,* and a series of outstanding lectures and seminars on his special interests: Thomas Hardy, Modern Drama, Shakespeare, and above all, the

Classical Background to English Literature. Also, as his many students over the years have deeply appreciated, he never faltered in his pastoral duties and always took a compassionate stance when one was needed. He has promised not to desert us altogether. His experience and wisdom will be needed in these hard times. *Ave atque vale.*

Dr Pamela Lamplugh Robinson, Reader in Palaeozoology, retired in September 1982, after thirty-four years' association with the College. After being Librarian to the Geological Society, she came as an undergraduate student in the Geology Department in 1948, taking First-Class Honours in 1951. She was appointed Assistant Lecturer in the Department of Zoology and Comparative Anatomy in the following year, Lecturer in 1955 and Reader in 1966. Her PhD thesis and her earlier published work was on the Mesozoic reptiles in the fissure faunas of the west of England. Amongst her lizards was one with elongate ribs which she suggested had gliding habits, making it the earliest aerial vertebrate, before the birds and long before the bats. She named it *Kuehneosaurus* after Professor Walter Kühne who had been research assistant to Professor D. M. S. Watson and who found the first bones. In 1957 she went to India and worked on land vertebrates of lower Triassic date in West Bengal, including a new sauropod dinosaur. She made several other journeys to India after Professor J. B. S. Haldane had retired there. She was an enthusiastic lecturer and taught on a wide range of vertebrates as well as the main course on evolution.

Other members of the academic staff retiring in 1983 were Mr D. Foskett (Library, Archive and Information Studies) after twenty-five years as a part-time lecturer; and Dr Hazel Weymes (Anthropology) a student of the College prior to becoming a lecturer in 1974.

Mr Harry W. Callaghan, the Deputy Librarian, retired after forty-six years' service on the staff of the Library. His librarianship career had been exclusively at UCL and was only interrupted by a spell of service in the Royal Marines. He was appointed first as a Library Assistant and, due to the obvious quality of his work, he was promoted through several posts until he reached the rank of Deputy Librarian. He worked in almost every part of the Library at some time and his unrivalled experience will be greatly missed. It is difficult to estimate the value of the help he must have provided to many thousands of College staff and students. His contribution to the College was not only in the Library, for he was a founder member of the College Chamber Music Club, playing the violin in concerts since 1952.

A number of long-serving members of the administrative and technical staff retired in 1983. Mrs Margaret Bennett first joined the staff of the College in February 1959 giving temporary part-time secretarial assistance and moving from department to department where the need arose. In 1963 she became Personal Assistant to Professor Sir William Coldstream and Departmental Secretary in the Slade School. She was a delightful and humorous colleague and revealed a talent for getting on with all sorts of people. It was thirty-seven years ago that Miss Cynthia Clewer first took up a post in the College and was appointed as secretary/shorthand typist in the Department of Engineering. She was an assiduous worker and scholar, gaining a BA Degree in French from Birkbeck College in 1956. In 1957 she was appointed Faculty Clerk. Over the years her phenomenal memory has proved to be very useful to successive Tutors of that Faculty, whilst many

students of the past regard her with warmth and gratitude for the help and encouragement she has given them. She will be greatly missed by colleagues, friends and students alike. Miss Patricia McKee came to UCL as a student in 1946 and became secretary to the Phonetics Department in 1949. For thirty-four years she gave devoted service to staff and students alike. Mr John West, an Experimental Officer in the same department, retired after twenty-eight years of service. Mr D. R. Allen, a member of the technical staff (Mechanical Engineering) retired after almost thirty years' service.

RETIREMENTS FROM COUNCIL

Sir Douglas Ranger retired after one year as a member of Council. He retired from the Deanship of The MHMS in September 1983 and his place on Council has been taken by the new Dean. Sir Douglas specialised in Otolaryngology at the Middlesex Hospital, having qualified at The MHMS in 1941, and been elected FRCS in 1943. He was appointed Dean of the Medical School in 1974.

The College was sorry to lose the services of Mr E. V. Symons after seven years, two of these as a member of the College Committee before the granting of the Charter, and the re-constitution of the College Committee as Council. He served on numerous other College Committees — Finance Committee (since 1975), Fellows Committee, Academic Services Unit Policy Sub-Committee, the Properties Acquisition Sub-Committee and the Refectory Management Committee. Mr Symons was educated at UCL. He held the positions of Deputy Chief Inspector of Taxes 1964-73 and Chief Inspector of Taxes 1973-75. From 1975 until 1977 he was Director General of the Board of Inland Revenue. He was elected a Fellow of the College in 1980.

RESIGNATIONS

Professor H. P. Rang resigned his position in the Department of Pharmacology at the end of September 1983, on appointment to the Directorship of the Sandoz Institute of London. He entered College to study medicine in October 1954. On graduating first in physiology and then in medicine, he moved to Oxford to read for the DPhil under the direction of Professor W. D. M. Paton. One of the outcomes was the development of a now universally applied technique for the direct measurement of the binding of labelled drugs to tissue receptors. This work, and a stream of other important contributions to synaptic and receptor pharmacology, led to his election to the Royal Society in 1980. After a University Lectureship and Fellowship at Oxford, he was appointed to chairs of Pharmacology first in 1972 at Southampton, then at St George's, and in 1979 at UCL. He has been an outstandingly successful Head of Department, a superb teacher and so effective an administrator that he was able to spend as much time in the laboratory as in his office. His widely respected judgement and the high regard he enjoys in the University at large were reflected in his election to the Senate. More recently, in May 1983, he was elected a Fellow of UCL. The loss of Professor Rang will be tempered by his continuing association with the College both as a Visiting Professor and as Director of the Sandoz Institute, which will be sited within the College rectangle. The Institute will have as a main aim the discovery of novel therapeutic agents, and its foundation, forecast by the Provost in 1980-81, is an exciting development. The Institute

staff will be uniquely qualified to contribute to the teaching of students of medicinal chemistry and pharmacology and it is certain that, under the direction of Humphrey Rang, both this teaching and the research activities of the Institute will be of the highest standard.

Professor Andrew Strathern, Head of the Department of Anthropology, resigned with effect from October 1983 in order to continue his work as Director of the Institute of Papua New Guinea Studies in Boroko, PNG — a post he has held for the last two years while on leave from College. He joined UCL as Professor and Head of the Department of Anthropology in 1976. Professor Strathern took his first degree in Classics at Trinity College, Cambridge in 1962, switching to social anthropology in his postgraduate work at the same university. From 1964, when he carried out his first field research in the New Guinea Highlands, until the present, he has developed an intimate knowledge of the cultures of New Guinea peoples on the basis of his yearly visits and is internationally recognised as an authority in this field. Before coming to UCL, he was Professor and Head of Department at the University of Papua New Guinea at Port Moresby.

Dr Brian Culshaw resigned from a Readership in Electronic Engineering on 31 August 1983 to take up a Chair of Electronics at the University of Strathclyde. Brian Culshaw graduated from the Physics Department at UCL in 1966 and then completed his PhD in Electronic Engineering under Eric Ash. After a period of about three years in the USA and Canada, he returned to UCL on a SERC Fellowship. He was appointed Lecturer in Electronic and Electrical Engineering in 1975 and promoted to Reader in 1982. Since joining the academic staff he has made substantial contributions to the work of the Department on Fibre Optic Sensors including some particularly interesting work on the development of the Fibre Optic Gyroscope. Brian Culshaw has been a strong supporter of the Academic Services Unit and has provided it with a number of study projects and has organised two successful short courses on Fibre Optics. He will be missed by all.

OBITUARY

We record with regret the death during the year of a number of members and former members of the College. They include one Honorary Fellow and seven Fellows of the College.

Professor D. B. Fry, who died suddenly on 21 March 1983 at the age of seventy-five, joined the Department of Phonetics as an Assistant Lecturer in 1934 and was to pass the whole of his academic life in the College, apart from four war years which he spent in charge of the Acoustics Laboratory of the RAF Central Medical Establishment. He succeeded Daniel Jones as Head of the Department in 1949 and was appointed Professor of Experimental Phonetics in 1958, a year in which he launched the new and influential journal *Language and Speech* which he was to edit for twenty years. He was responsible for establishing Experimental Phonetics as an important research discipline in the College and he saw his own and the Department's activity in this area gain an international reputation, especially in the field of hearing. He retired in 1975, having given up the headship of the Department four years earlier, but his research and writing in no way diminished. The years between 1975 and 1979, when he produced two important books written with the lucidity which characterised his lecturing, were particularly fruitful.

Up to a few days before his death, he was a constant and welcome visitor to the Department and to the Housman Room. He was a scholar who was also an expert and sensitive musician and singer and whose concert performances of operas by Mozart and Donizetti will be remembered with admiration by members of the Old Students' Association. His knowledge in many scientific fields and in the arts was unusually wide-ranging, and his opinions were always well-informed and tolerant, so that conversation with him on a variety of topics was invariably a rewarding and stimulating experience. Above all, an approachable and sympathetic colleague, he was intensely loyal to his Department and to the College where he had so many friends.

Professor Hans Grüneberg, FRS, Professor Emeritus of Genetics, who died on 23 October 1982, at the age of seventy-five, had been on the staff of University College for over forty-five years. A refugee from Germany, he came to College at the invitation of J. B. S. Haldane, then Professor of Genetics, and like many others before and since, found a home in the College. By training a physician as well as a biologist, he quite early became interested in the developmental effects of genes and in the use of mutant mice for the understanding of inherited morphological disorders in man. At that time, long before the advent of molecular biology, investigations of this type were almost entirely dependent on establishing the probable sequence of developmental events from histological observations at various stages of development. He excelled at this approach, and this College became one of the leading centres in the world for research in this field. His book *The Genetics of the Mouse* was for long the most authoritative and comprehensive text on the subject. Professor Grüneberg was an excellent example of what is generally referred to as German thoroughness. Dauntingly methodical, well-organised and disciplined himself, he expected the same of his students and colleagues, but was frequently disappointed. His manner, very professorial, probably a legacy from the German academic world, was liable to intimidate retiring spirits, but he was a kindly man, easy to talk to, and helpful beyond the call of duty.

Professor Keith Stewartson, Goldsmid Professor of Mathematics, died on 7 May 1983 at the age of fifty-seven. He had a world-wide reputation for his many contributions to theoretical fluid mechanics. After beginning his research at Cambridge, his first appointment was at the University of Bristol as a Lecturer and he moved to Durham University as Professor of Applied Mathematics when only thirty-two. He was appointed to the Goldsmid Chair in 1964 and was elected Fellow of the Royal Society in the following year. His researches in fluid mechanics centred round the exploitation of the boundary-layer concept in a wide variety of contexts. He initiated major advances in such topics as rotating fluids, stability and transition, critical layers in geophysical flows and, in particular, to the recent advance known as 'triple-deck theory' which has elucidated many hitherto unexplained features of flows over bodies and given great insight into the technologically important phenomenon of separation. His research was characterized by imagination, ingenuity, rapidity of thought, and enjoyment. As his fame grew, so did the requests for visits from many quarters and his contacts led to a stream of visitors coming to University College for advice. He was keenly interested in what they had to tell him about their work and was unstinting in his help and hospitality. Professor Stewartson's main activity within

University College was in the building up and maintenance of the Applied section of the Mathematics Department; he had a deep concern for the welfare of staff and students. Many people will miss the benefit of his advice, his encouragement for their efforts and his friendship.

Sir Eric Turner, CBE, FBA, Honorary Fellow of the College and Emeritus Professor of Papyrology, died in Inverness on 20 February 1983. He was born in Sheffield in 1911, where his father, W. E. S. Turner founded the subject of Glass Technology; he was educated at King Edward VII School, Sheffield, and at Magdalen College, Oxford. With an interruption for war service in Intelligence, he spent his academic career in two places; in Aberdeen from 1936 to 1948, and in London for thirty years first as Reader, and then (uniquely in this country) as Professor of Papyrology until he retired in 1978. Among many other achievements, he was active in founding the Institute of Classical Studies London, and was its first Director, from 1953 to 1963. Turner was richly endowed with two distinct but complementary qualities, that of producing distinguished work himself and that of promoting it in others. In *Oxyrhynchus Papyri* and elsewhere he edited some highly interesting Greek literary texts (notably Menander) and a whole range of documents; but he was also a general editor of the series for over twenty-five years; and in that way, by his personal teaching, by regular seminars in London and frequent visits abroad he was a help and inspiration to many scholars of younger generations. The three books *Greek Papyri* (1960, second edition, 1980), *Greek Manuscripts of the Ancient World* (1971) and *The Typology of the Early Codex* (1971) will be what colleagues throughout the world will especially remember of his work. Apart from his connection with the *Union Academique Internationale,* culminating in the Presidency (1974-77), Turner was known and esteemed by many individual scholars and institutions in countries abroad as well as at home. A catalogue of honorary degrees, Visiting Memberships and Corresponding Fellowships could show this; what it could not show is the lively, active, warm and yet unassertive personality for which his friends miss him so much.

Cyril de Vere Green died on 27 February 1983, at the age of seventy-four. He qualified as a dentist from Guy's Hospital in 1932 and continued his training in Toronto where he completed the DDS degree in 1934. His long association with UCH began when he was appointed as a demonstrator in the Dental School in 1936. In 1939 he became a part-time consultant in the Dental Hospital, which position he combined with a highly successful private practice at No. 11 Devonshire Place. He was also Dental Consultant to the National Heart Hospital. A measure of the high regard in which he was held by generations of dental students was the fact that he was elected no less than eight times to the Presidency of the UCH Dental Society. In 1967 he was appointed as Vice-Dean of UCH Dental School and served in this post until 1974. He had wide outside interests ranging from his long association with the American Dental Societies of London and Europe, and the International College of Dentists to his world-famous collection of musical boxes, which is now housed in a special wing of the museum in Utrecht. In his later years he received many honours from dental associations throughout the world culminating in his election as the President of the International College of Dentists. He was an outstanding lecturer and gave the inaugural Pierre Fauchard memorial lecture in 1969. He received the Elmer Best Award from

the American Ambassador Walter Annenberg in 1973, and he was made an Honorary Member of the American Dental Association in 1982. He was a man of considerable charm and distinction who lived life to the full. He will be sadly missed by his friends in many parts of the world and his name will long be honoured in UCL Dental School.

Dr Cyril Dodd died on 19 September 1983 at the age of sixty-nine, having retired at the end of December 1978 owing to ill-health. Cyril Dodd entered College as a student in the Department of Physics in 1933 and graduated in 1936, being placed top of the University list, for which distinction he was awarded the Granville Studentship for research under Professor Andrade. His thesis on the effect of an electric field on liquid viscosity led to the award of the PhD degree in 1939. Meanwhile he had been appointed an assistant lecturer in January 1938. He left College in September 1939 to take up a lectureship at the University of St Andrews, but in 1940 he joined the Ministry of Supply working on fuses, firstly at the Royal Society Mond Laboratory, Cambridge, and then at the Armaments Design Department, Fort Halstead, Kent. Rejoining College as lecturer in 1945, he resumed research on the liquid state, extending his investigations into the properties of supercooled liquids. When Professor Massey succeeded Professor Andrade in 1950, Cyril commenced research in nuclear physics and became an acknowledged authority on the bubble chamber for studying high energy particles. He built one of the first small chambers, and in 1955 he spent five months in the USA as a visiting professor to the leading research laboratories in this field. He was promoted to Reader in 1956. After a visit to Geneva in 1961 for the commissioning of the CERN propane chamber, a persistent, painful, foot affliction led to his gradual withdrawal from research, and from 1963, when he became Departmental Tutor, he concentrated his efforts on teaching and tutoring. He was an exceptionally good lecturer, a fine demonstrator in the laboratory, and a first-class tutor. In 1965 he became Tutor to Science Students and Sub-Dean of the Faculty of Science. With the introduction of the course-unit system in 1966, he became increasingly involved in the Faculty Office until his whole effort was directed towards ensuring the smooth operation of the system. Under his guidance the Faculty timetable was evolved, and the Sub-Boards of Examiners were appointed and their procedures established. Although somewhat formidable to students, he always had their welfare at heart, and he took endless trouble to make the best possible arrangements for individual students, whose requirements were apparently not compatible with the system. Each year he read all UCCA application forms submitted to the Faculty, his red-inked underlinings and comments having mixed receptions in the Departments. Always he was deeply concerned for the maintenance of standards from admission to graduation. Cyril was a real College man, being made a Fellow in 1974. He is missed by his many friends and colleagues.

Dr H. M. Hulme died on 16 March 1983. Hilda Hulme taught in the English Department from 1944, when she was appointed Assistant Lecturer, until her retirement as Reader in 1976. Born in Hanley, Stoke-on-Trent, she attended Hanley High School, and then was herself an undergraduate in the English Department at UCL going on to take an MA in 1937 for a thesis on dialect in Tudor Drama, and a PhD in 1947 for her thesis 'Studies in Language, mainly in relation to Derbyshire, Staffordshire and Shropshire

from church accounts'. For seven years she taught in schools, first at Chesterfield and then as Senior English mistress at the Grammar School, Bingley. At UCL she was able to use her mediaeval and Shakespearean interests, and she was an editor of Shakespeare: but it was as a scholar of language, and particularly Shakespeare's language, that she was known throughout the world. Her book *Explorations in Shakespeare's Language: Some Problems of Word Meaning in the Dramatic Text* (1962) is still admired, and an essential tool for all modern Shakespearean editors and commentators. Building on her earlier research, she showed a painstaking, subtle and lucid mind. In demonstrating in particular both her insistence on scholarly precision and her understanding of the delicacy as well as the largeness of Shakespeare's sympathies, this book will remain a tribute to her for a long time to come.

Many members of the College, past and present, will have learned with sadness of the death on 20 January 1983 of Mr Hyman Kestelman, a member of the Mathematics Department for fifty-five years. After taking his intermediate examinations at Birkbeck College, he joined the Mathematics Department as an undergraduate in 1928. During 1931-32 he studied for an MSc Degree and, from 1931 to 1949, was a lecturer although he did not go to Bangor when the Department was evacuated during the war, and instead taught at Birkbeck College during this period. In 1949 he was made a Reader in Mathematics and in 1951 he became Tutor, a post which he enjoyed for nineteen years. This involved organising examinations and admissions as well as carrying out the normal welfare duties of a Tutor! He was a true father figure to hundreds of students who passed through the Department. These included many of the weaker students who were able, by his encouragement, to make valuable contributions to the mathematical life of society but who would, without doubt, have been discouraged into failure without his sympathy and understanding. Despite this arduous task he managed to find time to be Chairman of the Chamber Music Society, President of the Mathematics and Physics Society and Auditor for the Common Room and for the AUT. In 1973 in recognition of his unique contributions he was elected a Fellow of the College. Within the Department his skills as a lecturer and his breadth of mathematical knowledge were legendary. His book, with Sir Harrie Massey, on ancillary mathematics was the standard work for physics students and others throughout the College. At a more specialist level his book on modern theories of integration is a standard work in advanced analysis. From 1975 he enjoyed a very active retirement. As an Honorary Research Fellow he came into College regularly to discuss mathematics and continued to contribute to several journals. A further outlet for his energies was his election in 1980 as the Honorary Librarian of the London Mathematical Society. He will be remembered with great affection by past and present colleagues and by many generations of past students. He will be greatly missed.

John Aldridge, RA, who died on 3 May 1983, joined the Slade as a part-time teacher soon after William Coldstream arrived as Professor in 1949 from a background outside the academic world. He was first and last a painter rather than an educationalist and a man of culture whose outlook was firmly based on his affection for the country and buildings of East Anglia. He will be remembered by successive generations of students as a teacher of peculiar

insight and sympathy, always gentle, invariably friendly but incisive in analysis. Many of them were welcomed at Great Bardfield and all his associates feel the richer for having known this admirable and delightful man.

David Walley, Senior Lecturer and Departmental Tutor in Computer Science, died suddenly on 26 May 1983, at the age of forty-eight. He was a mathematics undergraduate at UCL between 1953 and 1956, and then spent five years as a computer engineer before returning to UCL in 1961, first as a research assistant in Crystallography and subsequently as a Lecturer in the Department of Statistics. In both Crystallography and Statistics he became an invaluable consultant on all matters involving computing and mathematics, his contributions ranging from programming and machine maintenance to original mathematical research. Over the years he established a link for collaborative research between these departments that continues to thrive. He was a popular and successful teacher of Numerical Analysis and Computer Science with a rare knowledge of practical computing. During his six years as Departmental Tutor in Statistics he not only carried responsibility for virtually all the departmental administration but also gave unfailing support to all the students and became a lasting friend to many of them. Subsequently neither his concern with students nor his administrative responsibilities ever diminished, and his experience and efforts were vital to the new Department of Computer Science. His personal contribution to the College and its members, willingly and unobtrusively given, was immense.

Dr G. J. Webber, who died on 26 September 1982, was born in 1899 in Manchester. He graduated in 1921 with a first class LLB at UCL and was called to the Bar by the Middle Temple in 1922. He obtained a Readership in the Faculty of Laws in 1956 and held this post until 1966. In the meantime he still practised at the Bar until 1974 as one of the longest serving heads of chambers. His death, said *The Times* obituary, 'deprives the field of academic law of an inspired teacher and a lovable character . . . Known to hundreds of students as "Uncle George" he brought wit, elegance and humanity into the lives of all. His publications included the elegant and erudite *The Effect of War on Contract* and numerous articles. He was one of the first academics to appreciate the "Denning dimension" in law reform. His writings show a perfect balance between traditional regard for the law and the need for reform to satisfy modern needs. An accomplished Hebraist, he was much sought after as a visiting lecturer to a number of universities and academic institutions in Israel.' George Webber was the first Chairman of the Bentham Club when it was founded in 1948 and he held that post until 1956. At one time he was Vice-President of the Law Society. He was an excellent lawyer both practically and academically and a good friend of the Faculty Society. He is well remembered and sadly missed.

Howard Nixon was part-time lecturer in the School of Library Studies from 1 October 1959 to 30 September 1976 and Honorary Research Fellow from 1 October 1977 until his death on 18 February 1983. He was born in 1909, graduated in modern history at Oxford and took the Diploma in Librarianship here in 1933. His career as a librarian began and ended at Westminster Abbey Library but the rest of his career was spent in the British Museum Library, where he laid the foundations of his great knowledge of the history of English bookbinding, knowledge which was transmitted in a series

of handsome and learned publications and by lectures, including those he gave as Sanders Reader in Bibliography at Cambridge in 1968 and Lyell Reader in Bibliography at Oxford in 1979. He was a great scholar, rewarded by a recent OBE and by being made an Officer of the Ordre de la Couronne by the Belgian government in 1979. He was also the most delightful of men, of whom one never heard an unkind word.

The sudden death of Julian P. Sullivan at the end of March after a short illness and considerable suffering represents an irreparable loss to the Slade School. He came as a Teaching Assistant in 1976 and soon became central to the work, particularly in the Electronic, Computing and Audio Visual Media in the Graduate Experimental Group of the School. Julian's own work developed equally quickly and his leadership was valued by some of the most adventurous graduate students in the noted first-floor studio of the Pearson Building. Every member of staff in the School found in Julian a friend. He was a man of peculiar generosity and sweetness. The whole School came to depend on his technical skills which he offered unstintingly and to enjoy the radiance of his friendship. When he took over the leadership of the Experimental Group as a Lecturer and Tutor it was felt that the Group was destined for a period of uninterrupted progress, and so it turned out until his work was tragically cut short.

It will have come as a deep shock to the many friends whom he made at UCL to hear of the death of Colin Moore on 2 April 1983 at the early age of fifty-three. He had come to UCL as Assistant Secretary after the publication of the Todd Report on Medical Education in London, in order to handle the problems inherent in the proposal to unite the Royal Free Hospital School of Medicine and UCHMS with the College's Medical Sciences Faculty. Colin Moore was uniquely fitted for this difficult task: after six years in the Academic Department at Senate House, in the group of which Lawrie Cahill and Arthur Tattersall were also members, where he learned how the wheels of the University turned, and a further eight years at Imperial College, where he was the key man in the execution of that College's huge development programme, he had in 1968 become Secretary of the RFHMS. Here he won the complete confidence of his medical colleagues, and the Royal Free knew that on his taking charge at UCL of the Todd operation they would get a square deal. In the end the UGC was unable to find the finance in time, and the Royal Free worked out its own solution; but UCL was then fortunate to have Colin Moore in the right job at the right time, to act as the honest marriage-broker in the reunification with UCHMS, and also to take charge of UCL's own quinquennial development programme, or whatever became of that unfortunately now outmoded procedure. His appointment three years ago as Secretary of SOAS was a fitting recognition of his success in a variety of demanding posts and of his versatility and personal qualities as an administrator. It is tragic that his tenure of that post has been cut so short. He was a person of gentle character, who got results by hard work and persuasion, and by patent honesty. He had a scholarly mind, and was deeply and widely read in the classics of English Literature, with a special understanding of the poets of the 18th and 19th centuries and of Shakespeare. He inspired both liking and respect, and colleagues soon became friends. He will be greatly missed throughout the University.

It was with great regret that we learned of the death, on 12 November 1982,

of Mr H. G. Effemey. Harry Effemey joined the technical staff of Electrical Engineering in 1947 and his initial responsibility involved ordering and setting up the equipment in the teaching laboratories. He also undertook much of the experimental work for Professor Barlow which led to the development of the HO1 waveguide — a development that greatly increased the prestige of the department. He was appointed to the academic staff in 1951 and was promoted to a Senior Lectureship in 1967. When his work as Engineering Building Co-ordinator was completed in 1969 Harry Effemey was appointed as the College's first Safety Officer. In this capacity he laid the foundation for the present day comprehensive and highly important safety organization. It is sufficient tribute to say that although the service that he started has been expanded his initial organization has proved sound and workable for nearly fifteen years. During his time on the academic staff, and until he retired, through ill health, in 1976, he undertook teaching commitments and also had responsibility for the running of the workshops, for ordering equipment and for the financial control of departmental funds. He also made a major contribution as the chairman of a Liaison Committee for the Engineering Building, which ensured, from the early planning stages to completion, that the architects and specialist consultant engineers took due account of the aspirations and needs of the future occupants of the building. It can be said that many of the more valuable features of the building represent a lasting memorial to his expertise and dedication. Finally it may be noted that from the time of his retirement until shortly before his death Harry Effemey maintained his contact with the Department of Electronic and Electrical Engineering by virtue of a well-deserved appointment as an Honorary Research Fellow.

It was with considerable sadness that the College, and especially staff in the Bursar's Department who worked with her, learnt of the death on 4 January 1983 of Miss Winifred a'Brook. Miss a'Brook joined the administrative staff of the College in 1942 having previously worked for fifteen years in the Works Department of Guy's Hospital. She came to the College as clerical assistant to the Superintendent of Buildings and part of her time was spent at Stanstead Bury where the central administration had been evacuated. With the appointment of the first College Bursar (C. H. Cooke) in 1948, Miss a'Brook became his senior confidential clerk and not long after E. H. Swain took over from Mr Cooke in 1950 she became Administrative Assistant, a post which she held until her retirement in 1972. She was an invaluable member of the Bursar's Department particularly with her first-hand knowledge of the difficult war-time and immediate post-war periods and she was intensively loyal in her service to the College.

Mr R. S. Ward died on 31 August 1983. He joined the College in 1966 from the Royal Free Hospital to head the Salaries, Wages and Superannuation Section initially in Finance, transferring with his Section to the Personnel Division in 1969. During his College career his industry and efficiency in discharging his duties and his personal qualities were the admiration of all those with whom he came in contact. Colleagues throughout the College to whose affairs he gave such painstaking attention owe him a great debt of gratitude as do also our pensioners and their families to whose needs he attended with such care.

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APPENDIX I

NUMBERS OF STUDENTS 1982-83*

	Under-graduate		*Post-graduate*		*Total*	
Faculty of Arts	1,404	(82)	352	(142)	1,756	(224)
Department of Political Economy	292	(4)	27	(7)	319	(11)
Slade School of Fine Art	106	(0)	87	(5)	193	(5)
	1,802	(86)	466	(154)	2,268	(240)
Faculty of Science	1,581	(5)	†550	(138)	2,131	(143)
Faculty of Medical Science‡	322	(0)	—		322	(0)
Faculty of Engineering	503	(1)	235	(65)	738	(66)
Faculty of Laws	292	(14)	161	(49)	453	(63)
Faculty of Environmental Studies	150	(1)	252	(61)	402	(62)
Faculty of Clinical Sciences	471	(0)	53	(35)	524	(35)
	5,121	(107)	§1,717	(502)	6,838	(609)

* As at 31 December 1982.

† This figure includes 75 full-time and 37 part-time students working in the College Faculty of Medical Sciences who were registered in the University Faculty of Science.

‡ Non-clinical Medical and Dental students only (excluding Intercalated BSc students. These are all included in Science).

§ Of this number 978 full-time students and 449 part-time students were registered for higher degrees of the University of London; the remainder were working for higher diplomas of the University or of the College, or for the higher degrees of other Universities, or were engaged in research work, or attending postgraduate lecture courses.

The figures in brackets indicate the number of part-time students included in the total under each head.

APPENDIX II

UNIVERSITY FIRST DEGREE AND DIPLOMA AWARDS

1 OCTOBER 1982 — 30 SEPTEMBER 1983

FACULTY OF ARTS

B.A. Degree	*1st Class Honours*	*2nd Class Honours Upper Div.*	*2nd Class Honours Lower Div.*	*3rd Class Honours*	*Pass*	*Total*
Ancient World	—	4	5	—	—	9
Anthropology & Geography	—	3	1	2	—	6
Classics	4	1	2	1	1	9
Classics & Ancient History	—	—	3	—	—	3
English	5	20	20	10	—	55
Fine Art	3	13	6	3	—	25
French	2	14	14	—	—	30
Geography	1	15	33	6	—	55
German	4	13	11	2	—	30
Hebrew	—	1	—	—	—	1
Hebrew Literature & Jewish History	1	1	—	—	—	2
History	8	25	21	1	—	55
History of Art	3	7	7	—	—	17
Italian	—	1	1	—	—	2
Latin	—	1	—	—	—	1
Linguistics	1	3	5	3	—	12
Medieval Archaeology	—	2	1	—	—	3
Modern Iberian & Latin American Regional Studies	—	2	10	2	—	14
Philosophy	3	13	13	1	—	30
Scandinavian Studies	—	2	6	1	—	9
Ancient History & Egyptology	1	1	1	—	—	3
Ancient History & Social Anthropology	—	3	3	1	—	7
Anthropology & Linguistics	1	1	1	1	—	4
English & German	—	1	1	—	—	2
English & History of Art	—	5	1	—	—	6
French & History of Art	—	3	1	—	—	4
French & Philosophy	1	—	—	—	—	1
German & History of Art	1	—	1	—	—	2
German & Linguistics	—	1	—	—	—	1
German & Scandinavian Studies	—	4	2	—	—	6
History & History of Art	—	2	1	—	—	3
Italian & History of Art	—	—	1	—	—	1
Philosophy & Economics	—	—	1	1	—	2
Philosophy & Linguistics	—	1	—	—	—	1
Spanish with French	—	1	2	—	—	3
	39	164	175	35	1	414

B.A. Degree (Aegrotat)	*Pass*	*Total*
	4	4

FACULTY OF LAWS

LL.B. Degree	*1st Class Honours*	*2nd Class Honours Upper Div.*	*2nd Class Honours Lower Div.*	*3rd Class Honours*	*Pass*	*Total*
	5	28	48	6	1	88
LL.B. Degree (Aegrotat)					1	1

FACULTY OF MEDICINE

Basic Medical Sciences and Pharmacology Examination: 128 students passed.
Second Examination for Dental Degrees: 54 students passed.
M.B., B.S. Degrees: 100 students passed, including 2 with distinctions.
B.D.S. Degree: 46 students passed, including 7 with honours.

FACULTY OF SCIENCE

B.Sc. Degree	*1st Class Honours*	*2nd Class Honours Upper Div.*	*2nd Class Honours Lower Div.*	*3rd Class Honours*	*Pass*	*Total*
Anthropology	1	9	18	4	—	32
Anthropology & Geography	—	—	2	—	—	2
Applied Physics	1	3	7	5	1	17
Architecture	5	9	16	7	—	37
Astronomy	4	2	—	2	—	8
Astronomy & Physics	2	1	6	2	—	11
Biochemistry	1	5	12	—	—	18
Biology	—	—	3	—	—	3
Botany	—	1	5	—	—	6
Building	—	—	3	—	—	3
Chemistry	7	11	10	6	2	36
Chemistry & Physics	2	—	1	1	—	4
Combined Biological Sciences	—	—	1	—	—	1
Computer Science	2	8	5	1	1	17
Computer Science with Electronic Engineering	—	1	5	2	—	8
Environmental Studies	—	3	1	—	—	4
Genetics	—	—	3	—	—	3
Genetics & Botany	2	—	2	—	—	4
Genetics & Microbiology	2	1	2	2	—	7
Genetics & Zoology	—	1	—	—	—	1
Geography	1	5	12	2	—	20
Geology	—	2	8	4	—	14
Human Sciences	—	9	2	—	—	11
Mathematics	1	6	6	4	2	19
Mathematics & Astronomy	—	—	2	1	—	3
Mathematics & Physics	—	1	—	—	—	1
Medicinal Chemistry	—	2	5	1	—	8
Microbiology	1	4	7	2	—	14
Pharmacology	—	8	3	—	—	11
Physics	2	5	5	1	1	14
Physiology	—	8	4	—	—	12
Psychology	3	24	33	6	1	67
Speech Sciences	2	16	21	3	1	43
Statistics	—	1	3	—	—	4
Statistics & Computer Science	1	3	5	2	—	11
Zoology	1	5	8	1	—	15
	41	154	226	59	9	489

B.Sc. Degree (Aegrotat)	Pass	Total
	1	1

B.Sc. (Intercalated)	1st Class Honours	2nd Class Honours Upper Div.	2nd Class Honours Lower Div.	3rd Class Honours	Pass	Total
Anatomy with Basic Medical Sciences	2	7	—	—	—	9
Anthropology & Basic Medical Sciences	—	1	—	—	—	1
Basic Medical Sciences with Anatomy	—	1	—	—	—	1
Biochemistry with Basic Medical Sciences	—	—	1	—	—	1
Biomedical Sciences	3	12	2	—	—	17
Genetics & Basic Medical Sciences	—	4	—	—	—	4
History of Medicine & Basic Medical Sciences	2	1	1	—	—	4
Medical Sociology & Basic Medical Sciences	1	1	1	—	—	3
Pharmacology with Basic Medical Sciences	1	9	—	—	—	10
Physiology with Basic Medical Sciences	1	1	—	—	—	2
Psychology & Basic Medical Sciences	2	8	3	—	—	13
Zoology & Basic Medical Sciences	—	1	—	—	—	1
	12	46	8	—	—	66

FACULTY OF ENGINEERING

B.Sc. (Engineering) Degree	1st Class Honours	2nd Class Honours Upper Div.	2nd Class Honours Lower Div.	3rd Class Honours	Pass	Total
Biochemical Engineering	1	1	2	—	—	4
Chemical Engineering	4	7	8	6	—	25
Civil Engineering	4	13	13	6	5	41
Electronic & Electrical Engineering	9	11	6	2	2	30
Electronic Engineering with Computer Science	1	1	5	1	—	8
Mechanical Engineering	9	5	7	—	2	23
Naval Architecture	4	3	—	1	—	8
	32	41	41	16	9	139

B.Sc. (Economics) Degree	*1st Class Honours*	*2nd Class Honours*		*3rd Class Honours*	*Pass*	*Total*
		Upper Div.	*Lower Div.*			
Economics	—	17	2	10	6	35
Economics & Economic History	1	2	6	1	1	11
Economics & Geography	—	5	4	2	1	12
Economics & Statistics	1	2	3	—	—	6
	2	26	15	13	8	64

APPENDIX III

UNIVERSITY HIGHER DEGREE AND HIGHER DIPLOMA AWARDS

1 OCTOBER 1982 — 30 SEPTEMBER 1983

FACULTY OF ARTS

D.Lit. Michael A. Screech. (1)

Ph.D. *Bartlett School of Architecture and Planning:* Roy T. Gilbert. *English Language and Literature:* Caroline N. Dakers, Ian Haywood, Christopher G. P. Reid, Barbara L. Wedgwood, Rene J. A. Weis. *French Language and Literature:* Brian M. Shand. *German:* Angela Davies, Richard M. Storey. *Hebrew and Jewish Studies:* David Katz, Joanna Weinberg. *History:* Leonie J. Archer, Edna N. Bowen, Stephanie K. Jones, Philip J. Morgan, Gerson Moura. *History of Art:* Edward J. Diestelkamp. *Italian:* Peter January, Mona Sehrawy. *Latin:* Maria Papadimitriou. *School of Library, Archive and Information Studies:* Rafia Mohammadally, Aldyth D. Scott. *Philosophy:* Souzy Dracopoulou, Andros Loizou, Graham J. McFee. *Phonetics and Linguistics:* John A. C. Mapanje, Chellakan R. Marthandan, Stephen J. Paterson, Estelle M. Phillips. *Scandinavian Studies:* Alan M. Lane, David M. McDougall, Ian C. McDougall. *Spanish and Latin American Studies:* Angel Garcia. (33)

M.Phil. *Bartlett School of Architecture and Planning:* Julius O. Famuyiwa, Sheryl-Anne K. Haynes, David T. W. Leung, Michael D. T. McMahon, Adetuminu I. Onadeko, Tzeni Patsiaoura-Arzimanoglou, Catherine Poulton, Anthony J. Redpath, Maria L-Y Siu, Hon-Kiu Tsang, Sarah J. Watmore. *English Language and Literature:* William B. Shebar. *Hebrew and Jewish Studies:* Maurice G. Bowler. *History:* Christopher H. Kelland. *Italian:* Joan Hall. *School of Library, Archive and Information Studies:* Ramesh C. Dogra. *Philosophy:* Carleton K. Montgomery, Victor J. J. Seidler, Hugh R. Upton, Peter A. Winn. *Scandinavian Studies:* Caroline E. Adnitt. (21)

M.A. *Archive Studies:* Charles A. Gibson, Jacob C. Kufa, Aidan H. Lawes*, Nelson Mushariwa. *Area Studies:* Vivienne Dickinson, Nancy A. S. Mandel, Antony J. Moss, Ian P. Pooley*, Peter H. Prior, Mark C. A. Thomson, Roberto Vargas, Garcia-Mameli. *Classics:* Kathryn Kendal*, Georgia Vamvounaki. *English:* Deborah S. Waldie*. *German:* Sally C. Dibben†, Jennifer G. Doe, Ruth-Janet Feuchtwanger, Gabriele Griffin*, Katharina Hehn, Susan W. Johnson†, Daniela B. Kersten†, Clifford J. Middleton†, Svetlana T. Mintschenko, Gerald R. Rawcliffe†. *Library and Information Studies:* Mohammad A. Aliwi, Susan Ashby, Aidan St J. Baker, Lillian J. Brown, Jane Button, Sheila M. Cook, Sunday K. Dekor, Katherine Dimitrellou, Viggo K. Gislason, Lina Jaafar, Constance B. Matsheka, Muriel K. Mellor, Mohammed I. Mohammed, Julita Nawe, William R. Podmore, Lynn J. Sharp, Gawahir Sid Ahmed El-Hassan, George Skretas, John H. Sutton*,

Alison J. Sykes*, Mieko Yamaguchi. *Linguistics:* Ernst Gutt*, Evridiki Koumoullis, Eloisa Sebastian. *Phonetics:* Philip E. Davison*, Sylvie A. Ferrero, Fatima Mahdani. *Romance Languages and Literatures:* Kim L. Parsons. *Scandinavian Studies:* Kirsten Wolf. (53)

University Postgraduate Diplomas: Fine Art: 41, Linguistics: 5.

*Awarded Mark of Distinction.
†Awarded 81-82 but not included in the Annual Report for that year.

FACULTY OF ECONOMICS

Ph.D. *Laws:* Raphael O. Olaniyan. *Political Economy:* Jose Tavares de Araujo, Jr. (2)

M.Sc. *Economics:* David M. Ambler, Kulvinderjit Dhaliwal, Ngiam Ai Choo, Christopher J. Torrible, John Vlachakis, Charles J. B. White. *Urban Development Planning:* Vassiliki Angelidou, Fidelis E. Arong, Abdullahi B. Bature, Carlos Bustamante Lemus, Rosemary Donga, Carlos E. Garrido Pinto, Mona A. A. H. Helmy, Edith R. Jimenez Huerta, Takao Kakei, Ernest Kowero, Leyinu T. Nwikpo, Michael O. Ogunmoyela, Candido L. Perez Contreras, Maria T. Pizarro Sanchez, Ruth H. Potopsingh*, Celia M. Thomas. (22)

FACULTY OF LAWS

Ph.D. *Laws:* Ann N. Brice, Robert D. Ribeiro, Ronald A. Warrington. (3)

LL.M. Omesiri S. Akpofure, Samuel K. Amedoda, Raymund Anthony Ariokiasamy, Vassiliki Apostolidou, Albert P. Ashun-Staffiere, Mohamed Benfrieh, Mark D. Bennett, Nicholas J. Berry, Owen S. M. Bethel, Hilary J. E. Boland*, Susan B. Boyd*, Bruce S. Butcher, Javier Carillo Gonzalez, Kenneth A. T. L. Cattley, Cosmas N. Cheka, Bernadette Chen Mei Lee, Andrew M. Cockman, Joshua L. D. Dagogo, Costas Demetriadis, Demetrius Dingas-Chardalias, Kevin Dingli*, Jonathan Eyal*, Spilios Fassois*, Charles M. Fombad, Peter S. Forgie, Kleto Frangou, Geoffrey G. Gauci, Constantinos Georgopoulos, Rupert P. Hansen, Jr., Ian M. Hardcastle, Jessica Holroyd, Dahiru Ibrahim, Charalambos C. Ioannides, Irit Kipperman, Nicholas M. Little, Low Hop Bing, Kenneth J. Martin, Roderick E. Martin, Guillermo Martinez Casan, Mariann T. Meedom, Necton D. Mhura, Denzill Millichap, Rabiya Nagi, Suresh K. Nanwani, Neoclis Neocleous, Gerald M. Nwagbogu, Geraldine E. Oku, Efrosyni Parparinou, Sandra J. J. Paul, June A. Philips, Phua Kai Swan, John Pitman, Vinogopal Ramayah, Russell H. Ridley, Gail I. Robinson, Ashok K. Sancheti, Mahmoud S. I. Sawan, Andrew J. Scott, Sukhwant Singh, Pavlos A. Sophocleous, Christopher P. Stevenson, Peter G. Symmonds, Kay K. Tan, Tan Ju Seng, Saeed A. Tipu, Tseng Ta-Mon, William A. Tyrer, Jean-Pierre G. E. G. Vanhoof, Judson B. Warner, Barbara P. K. Wong, Albert R. Xavier, Patrick Yap Peck Choon, Tang L. Yeap, Edward Yirimambo. (74)

University Postgraduate Diplomas: International Law: 2, Shipping Law: 9§.

*Awarded Mark of Distinction.
§One candidate awarded Mark of Distinction.

D.Sc. Thomas A. Quilliam. (1)

Ph.D. *Anatomy and Embryology:* Peter L. J. Baluk, Cai Wen-Qin, Gregor Campbell, Timothy Cowen, Marilyn J. Duxson, Roberto Navarrete, Mohammad H. Sadrzadeh Nabavi Tabatabaii, Helen R. Woolcock. *Anthropology:* Bret H. Collins, Lawrence B. Martin, Jonathan Y. Okamura, Ildiko J. Vasary, Piero Viazzo. *Bartlett School of Architecture and Planning:* Ian G. Cullen, Matthew J. Kiernan, Kenson Kwok, Zilton L. Macedo, Vittorio E. Pareto, Alexandra Sotiropoulou. *Biochemistry:* Alexandra Adams, Stephen T. Hadfield, Lamya H. Hayat, Parveen Kumar, Richard C. Nudd, Julia D. Nunn, Mark H. Rider, Elizabeth A. Shephard, Laurence G. Williams. *Botany and Microbiology:* Susan M. Arnott, Ian J. Bruce, Jagroop S. Dahiya, Stephen M. King, Priti J. Raval, Freda T. Rossouw, Stephen G. Whittaker. *Chemistry:* Asoka Balasuriya, Kim E. Barrett, Chuen Chan, Yau T. Lam, Peter J. Manning, Andrew Mills, Stephen C. Parker, Rolando A. Savva, Adam I. Sotowicz. *Clinical Sciences:* Jagdish L. Devalia, Kishorchandra Gohil, John C. Kermode, Eme E. Osim, Irene Whitehill. *Computer Science:* Chang Tawei. *Genetics and Biometry:* Ashley R. Cooper, Gerald A. Gillespie, Stefan Karlsson, Marie A. Shaw, Robert Thomson. *Geography:* Boyowa A. Chokor, Gregory W. Richards, Sheila P. Robinson. *Geology:* Mohsen Arvin, Ahmet Sagiroglu. *History and Philosophy of Science:* Paul J. Weindling. *Mathematics:* Anthony T. Burke. *Pharmacology:* Alison M. Gurney, Richard M. J. Palmer. *Physics and Astronomy:* Celso Alvear, Zidan Asa'D, Vivien Moore, Jan-Peter A. L. Muller, Graham Poulter, David E. Reynolds, Anita M. Seddon, Linda J. Smith, David R. Tytler, Kym A. West. *Physiology:* Mark B. Cannell, Katarzyna M. Dziegielewska, Josephine L. Gibson. *Psychology:* Peter Howell, Alastair G. R. McClelland, Robert J. West. *Statistical Science:* Ehud Makov. *Zoology and Comparative Anatomy:* Eric J. Culbert, John H. Dubois, Peter J. Dyson, Jeremy J. Hooker, Raymond M. Lyall, Martin I. Muggeridge, Dilip D. Vakharia, Janet Winter. (88)

M.Phil. *Botany and Microbiology:* Egbichi N. A. Mbanaso. *Clinical Sciences:* Paul Thomas. *Geography:* Robert A. Blackmore. *Physics and Astronomy:* Jacinth J. K. Downes. *Psychology:* Valerie Pomfret. (5)

M.Sc. *Architecture:* Charles T. Anelay, Adwoah S. Bonsu, Jocelyn M. Boys, Michael G. Brown, Michael A. Browne, Lansana J. Cham, Napoleon O. O. Chinosa, Efrossini Comninou, Hassan Dahrouge, Rafic A. El Achkar, Joseph Falzon*, Brian D. Finnimore, Mark J. Foley, Nicholas Georgiades, Judy G. Glasman, Mohammed H. Harasany, Faruku N. Hussein, Constantine N. Kariambas, Eleni Labropoulou, Kok W. Lee, Tjeng H. Lim, Timothy P. Lingard, Jane M. Macfarlane, Esam E. D. M. Mahmoud Mostafa, Hiroshi Maruyama, Abdeen E. H. Mehaisi, Soterios Menexelis, Ng Wing Fai, Gillian R. Owens, Tofigh Pius, Ana L. T. Seroa Da Motta, Asem A.Toqan, Maria Vassiliadou*, James W. Wickes. *Biochemical Engineering:* Andrew P. Grant, Jaime Landa Vertiz, Peter J. Wilkinson*. *Biochemistry:* Ibrahim A. A. Al-Nasser, Allan J. Caplan, Mohammed-Ali Pervez. *Biological Anthropology:* Miles W. Ellis, William H. Jones, Timothy McQuiston, Robin M. Robinson*. *Computer Science:* Daniel Ashaha, Paul C. Attie, Sarah L. Baker, Katherine M. Bott, Rohit Chandarana, Chan Kim Hing, Jonathan A. Crowcroft, Shirley F. Henneman, Kamrul Huda, Peter Johnson, Koh Kim Tian, Christopher P. Lines, Mario R. Palencia, David H. Pitt, Lynda B. Roe, Helen C. Sharp, Philip A. Sladen, Ann C. B. McN. Tan, Elizabeth A. Taylor,

Theodoros Theodorou, Gary R. Varney. *Conservation:* Jacklyn D. Chandler, Sarah L. Fowler, Nicholas L. R. Gubbins, Garyfallia Kazolea, Paul S. Littlewood, Paul Maddox*, Gillian L. Matthews, Richard C. S. Raine, Neale W. Taylor, Marian J. Whittaker. *Educational Psychology:* John H. Benbow, Johnny Chan Hung Fun, Susan E. Corrall, Caroline M. Ferrier, Ellen W-H Lo, Michael J. Matthews, Andrew D. Parsons, Ahmad F. Ramjhun, Mary J. T. Willias. *General and Medical Microbiology:* John K. Brehm, Costas Economides. *History and Philosophy of Science.* Benjamin N. O. X. Barkow, Robert S. P. Kirsch. *Hydrogeology:* John M. Ashworth, Henryk Dudarenko, Lawson N. Evule, Diana M. Greenwood, David R. Hilton, Lawrence J. Houlden, John A. Jeffs, Ebrahim J. Louri, Sydney M. Mainala, Ignatius Okosa, Judith M. Parker, William M. Roman, Paul A. Turner. *Marine Geology and Geophysics:* Nkemdirim O. Ahiakwo, Robert A. Allan, Alistair J. Banks, Paul D. Butcher, Duncan Erratt*, Patrick Jonklass, Stephen L. Kehoe, Richard Lunam, Karen McGuinness, Robert P. Pascoe, Richard S. K. Sailsbury. *Micropalaeontology:* Peter W. P. Hooper, Elizabeth M. Kentish, Alison M. Merker, Ali Mostafi, Kester I. Okpiabhele, Keren W. Owers, Simon N. J. Payne, Hilary J. Stowe, Jeremy R. Young. *Neurological Science:* Sara G. Elsarrag. *Physiology:* Adrian P. J. Pini. *Social Anthropology:* Patricia J. Hayne, Lucien J. Savory*, Jeffrey M. Vass. *Statistics:* David J. Belsham, Robert N. Booty, John Georgiou, Francoise M-L. G. Seillier, Richard J. Verrall*. *Vertebrate Palaeontology:* Matthew J. Chapman, Mark V. Jones, Michael D. Saunders. (134)

*Awarded Mark of Distinction.

FACULTY OF ENGINEERING

Ph.D. *Chemical and Biochemical Engineering:* Neal S. Naimer, Francisco J. Viliesid Alonso, Richard A. Wisdom. *Civil and Municipal Engineering:* Talaat H. Abdel-Lateef, Michael A. Coad, Anastasios Danas, Sami I. Halata, Thomas S. Lunn, Luis M. D. C. Simoes, Marco A. Souza. *Electronic and Electrical Engineering:* Michael W. Austin, Ian P. Giles, Guo Yanchang, Don A. R. Jayasuriya, Youssef Kalatizadeh, George Kyprios, Alexander B. Kovaleski, Mehrdad Nikoonahad, David J. Price, B. M. Azizur Rahman. *Mechanical Engineering:* Yosry S. M. Morsi. *Photogrammetry and Surveying:* Mohamed S. M. El Hosseny. (22)

M.Sc. *Biochemical Engineering:* Ian Clowes, Peta S. Dessent*, John R. Hughes, Nigel S. Kirtley*, Timothy J. Latham, Gerald V. K. Leong, David R. Nuttall, Rajendra J. Patel, Chima J. Umeanozie. *Ergonomics:* David Baty, Fiona J. Goodbody, Ioannis Karagelis. *Marine Engineering:* Michael W. Edwards*, Ian Howell, Nikitas Lekkas, Paul W. Maillardet, Kyriakos Papantoniou, Athanasios Pirinis, Murat S. K. Savut, Christos Telemenis. *Microwaves and Modern Optics:* Peter D. Allan, Marais Badenhorst, Seyed J. Ghassemi, David H. Hague*, Mohammad R. Khan, Neil C. Michniak, See Lip Sim, Tze Keung Yeung, Ephraim A. I. Umoren, Kenneth R. Wood. *Naval Architecture:* John G. L. Aston, Michael V. Blundell, Eric G. Bramwell, Krishna Chandra, Owain T. Ellis, Jamil Ghandour, Richard W. Greenwood*, Richard E. Martin*, Cornelius N. McCabe, Peter H. A. Rose*, Andrew M. Wray*. *Ocean Engineering:* Estevam O. Beer, Ruth P. Lambert, Konstantinos Teneketzis, Arthur F. Williams. *Photogrammetry:* Ahmed A. M. Badr, Susan E. Beales, Rachel C. Gibson, Ganiyu M. Oyinlola, Peter R. Searle, Thomas D. Sheill*. *Surveying:* Bernard A. Bell, Christopher J. Curtis, Julia E. Gardner, David G. Veal. (55)

M.D. Max J. Lab. (1)

Ph.D. *Clinical Sciences:* Catherine A. Allen, Salmon A. Al-Rawaf, Karen A. F. Pulford, Pamela J. Roberts. (4)

M.Sc. *Periodontology:* Peter N. Galgut*. *Prosthetic Dentistry:* Supaboon Purnaveja. (2)

*Awarded Mark of Distinction.

APPENDIX IV

COLLEGE DIPLOMA AND CERTIFICATE AWARDS

1 OCTOBER 1982 — 30 SEPTEMBER 1983

FACULTY OF ARTS

Diploma in Archive Studies: Ann Susan Arnold, Nicholas John Baldwin, Piers William Anthony Cain, Lynda Sharon Dawson, Kristina Caroline Grant, John James Hazell, Caroline Judith Humphreys, Serena Mary Rose Kelly, Elaine Elizabeth McDowall, Margaret Meaden, Peter Michael Meadows, Samuel Njovana, Emma Akello Oduor, Urennah Christie Olehi,* Patricia Margaret Sewell, Elizabeth Jane Shepherd, Pius Joseph Wale, Anita Wilson. (18)

Diploma in Library and Information Studies: Mirghani Ahmed Abdel Hafeez, Said Mohamed Al-Asaad, William Edward Alexander, Emma Jane Baatz, Alison Janet Bailey*, Dolores Marie Bee, Joanna Brown, Bernadette Susan Carney, Anne Carwardine, Michael Charles Croucher, Gail Anita Downe, Genevieve Ann Dyer, Francis James Firth, Megan Forster, Nicholas Hadgraft, Serena Mary Hamilton, Deborah Karen Hodder, Hon Mi-Yin, Sheila Hosangaddy, Yuen Mei Emmie Ho-Tsui, Jacqueline Jeanne Ireland, Christine Mary Jones, Padmashree Kalraiya, Mark Maidment, Brian McHugh, Christine Douglas McIntyre, Ronald Robert Milne, Caroline Bridget Moughton, Sarah Annabel Old, Sandra Dawn Olney, Susan Carole Owen, Rosalind Caroline Pan, Susan Carole Parr, Nalini Persad, Amanda Jane Peters, Ortrun Peyn, Lesley Mary Pitman, Amal Kamal Qilingi, Mary Teresa Josephine Russill*, Jennifer Christine Ruthven, David Francis Smith, Andrea Stannard, Carol Stevens, Helene Ruth Elisabeth Wander, Margaret Mary Watson, Sara Anne Wilcox. (44)

Certificate of Proficiency in Phonetics: Kate Elizabeth Adams, Mireille Behali, Hiroko Eiju, Marie Frogneux, Julie Harris, Jergen Holert, Pilar Hortal, Jill Elaine House, Giovanni Iacobucci, Dinah Douglas Learmonth Livingstone, Giovanni Maragno, Daniele Dominique Marmond, David James Miller, Anne Marie Gabrielle Painot, Juan Isidro Pizarro, Hantamanalina Rakatomanana, Josephine Mary Roche, Monica Anne Rosmarin, Rina Consuelo Terrones Zambrano, John Henry Raymond Trape, Masaki Tsuzuki, Gloria Mercedes Vernon, Anna Claire, Dykes Warby, Denise Yvonne Wilkinson. (24)

*Awarded with Distinction.

FACULTY OF SCIENCE

Diploma in Conservation: Jacklyn Dawn Chandler, Sarah Louise Fowler, Nicholas Louis Reginald Gubbins, Garyfallia Kazolea, Paul Stephen Littelwood, Paul Maddox*, Gillian Linda Matthews, Richard Charles Stanley Raine, Neale William Taylor, Marian Jane Whittaker. (10)

Diploma in Hydrogeology: John Malcolm Ashworth, Sotirios Beloukas, Henryk Dudarenko, Lawson Ndubuisi Evule, Diana Marion Greenwood, David Raymond Hilton, Lawrence John Houlden, John Andrew Jeffs, Nazir Kadkoy, Ebrahim Jasim Louri, Sydney Moses Mainala, Pius Chudi Nwabugwu, Ignatius Okosa, Paul Arthur Turner, Anthony George Nihal Wijesekera. (15)

Diploma in Micropalaeontology: Paloma Aguilar Ortiz, David Nigel Barlow, Marcelle Kamal Bou-Dagher, Helen Cleator, Peter Kevin Douglas, Juan Carlos Herguera Garcia, Martin Jakubowski, Florence Mary Dorothea Lowry, Adetayo Ogunbayo Ogundiran, Derek Graham Parsons, Parmesh Prataprai Makwana Vakil. (11)

Diploma in Statistics: Anne Frances Deverell, Lau Sui Lin. (2)

*Awarded with Distinction.

FACULTY OF ENGINEERING

Diploma in Biochemical Engineering: Ian Clowes, Peta Sally Dessent*, Andrew Philip Grant, John Richard Hughes, Nigel Stuart Kirtley*, Jaime Landa Vertiz, Timothy John Latham, Gerald Vui Kwong Leong, David Robert Nuttall, Rajendra Jashbhai Patel, Chima Jerry Umeanozie, Peter Jeffrey Wilkinson*. (12)

Diploma in Chemical Engineering: Sharon Hancock, Christie Jeyaraj James, Howard John Lock, Steven Sumner, Russell John Young. (5)

Diploma in Marine Engineering: Michael William Edwards*, Ian Howell, Nikitas Lekkas, Paul Wenban Maillardet, Kyriakos Papantoniou, Athanasios Pirinis, Murat Sukru Kaya Savut, Christos Telemenis. (8)

Diploma in Microwave Engineering: Peter Duncan Allan, Marais Badenhorst, Seyed Jafar Ghassemi, David Hallett Hague*, Mohammad Rezwan Khan, Yochanan Yitzhak Kinory, Neil Charles Michniak, Simon Richard Potter, See Lip Sim, Tze Keung Yeung, Ephraim Asukwo Ikpito Umoren, Kenneth Ray Wood. (12)

Diploma in Naval Architecture: John Geoffrey Liam Aston, Michael Victor Blundell, Eric Guy Bramwell, Krishna Chandra, Owain Tudor Ellis, Jamil Ghandour, Richard Weston Greenwood*, Richard Edgard Martin*, Cornelius Neil McCabe, Peter Harold Alexander Rose*, Andrew Michael Wray*. (11)

Diploma in Ocean Engineering: Estevam Oscar Beer, Ruth Patricia Lambert, Konstantinos Teneketzis, Arthur Frederick Williams. (4)

Diploma in Photogrammetry: Acquah Boateng Agyemang, Martin Frederic Bolt, Anne Mary Burbidge, Nicholas Thomas Fickling, David John Gugan*, Galal El Din Ibrahim Ibrahim. (6)

Diploma in Surveying: Bertrand Barrington Burke, Paul Nicholas Dunkley, Hilary Sara Fertig, Andrew John Hinton, Julia Alison Hopwood, John Richard Oput, Timothy Robin Sharp, John Spensley, Howard John Wickes*, Abdullahi Ysuf Shereef. (10)

*Awarded with Distinction.

FACULTY OF ENVIRONMENTAL STUDIES

Diploma in Architecture: Nigel John Dennis Anderson, Amanda Lucy Annan, Alison Jane Astley, David Alan Back, Simon Michael Barker, Philip Brouard, Nigel Renton Buller, Yvette Jean Cameron, Martin Cook, Sasha Marcus Alaric Gebler, Bruce Ronald Harwood, Mark Nevard Herbert, Frances Elizabeth Holliss,

Jonathan Stewart Anthony Keer, Jeremy John Kent, Jonathan Andrew Law, Michael George Lewis, Ek Chew Lou, Andrew James Macswayed, Caroline Elizabeth Mauduit, Elizabeth Jane Moore, Oei Tjin Hwie, George Stelios Papadopoulos, Yasmin Amirali Shariff, Christopher Stuart Simmans, Terence Hau Ming Tse, Roderick Andrew George Vearncombe, Nicholas Miller Warns, Marcus Peter Wilshere, Joseph William Wilson. (30)

Certificate in Development Planning: Soelaeman Soepardi. (1)

Diploma in Development Planning: Abu El Gasim Suliman Abdalla, Azam Binte Abdullah, Megh Raj Adhikari, Julio Daniel Davila Silva, Babiker Hamed Babiker Elizayleai, Emmanuel Jackson Akpan Eton, Novatus Felician, Harish Chandra Gupta, Karun Kumar Gurung, Tahir B. Abd. Manad, Nasona Lebasi Mark, Silas Mari Mshelia, Okon Asuquo Nsabasi, Joseph Omale, Jonnalagadda Rambabu, Jarbas Torres Rezende, Jr. (16)

Pre-Diploma Certificate in Architecture: Almaz Salma Abdul Rahim, Nigel John Dennis Anderson, Amanda Lucy Annan, Elizabeth Jane Ashmore, Alison Jane Astley, David Alan Back, Mark Christopher Bailey, Simon Michael Barker, Jeremy Richard Belcher, Nigel Renton Buller, Yvette Jean Cameron, Wanda Jadwiga Krystyna Car, Janet Marion D'Auvergne Collings, Martin Cook, Richard Marcus Cutler, Richard St John Mark Free, Sasha Marcus Alaric Gebler, Virginia Mary Goldstone, Jane Patricia Gosnell, David John Gregory, Bruce Ronald Harwood, Frances Elizabeth Holliss, Jonathan Mark How, Peter Drake Jarman, Alistair William Dickason Jones, Joanna Alicja Kaliniecka, Jonathan Stewart Anthony Keer, Jeremy John Kent, Jonathan Andrew Law, Andrew James Macswayed, Caroline Elizabeth Mauduit, Duncan Piers Hutton Mitchell, Elizabeth Jane Moore, David Graham Pace, George Stelios Papadopoulos, Hugo Anthonie Röell, Yasmin Amirali Shariff, Christopher Stuart Simmans, John Francis Smith, Christopher Steele, Martin Summersgill, Paul Anthony Sweeney, Terence Hau Ming Tse, Roderick Andrew George Vearncombe, Susan Elizabeth Venner, James Benjamin Wells, Sarah Williams, Marcus Peter Wilshere, Paul Zara, Roman Andrzej Jerzy Zdziarski. (50)

APPENDIX V

SCHOLARSHIPS, STUDENTSHIPS AND PRIZES
COLLEGE AND UNIVERSITY AWARDS

COLLEGE AWARDS

Charlotte Ashby Prize (Laws)—Sally Moore.
Atchison Scholarships (Clinical Sciences)—S. J. Laurent, W. A. Nowlan.
Atchison Exhibitions (Clinical Sciences)—J. du Toit, S. J. Boniface.
David Bailey Prizes (Clinical Sciences)—P. L. Allen, D. E. Cox.
Sir Herbert Henry Bartlett Scholarships (Architecture)—Caroline Mauduit, Elizabeth Moore, J. R. Keen.
Herbert Batsford Prize (Architecture)—A. S. R. Howarth.
Thomas Witherden Batt Scholarships (Science)—M. Becker, A. Catlin, Penny Jenson, K. P. L. Leung, B. G. Fitzgerald, C. R. Mason.
Leonard Bayliss Memorial Prize (Physiology)—Sarah Dawkins.
Bayliss-Starling Memorial Scholarships (Physiology)—A. Pini, M. Duchen.
Francis Perch Bedford Prize (Zoology)—D. P. Wijesinghe.
Boise Scholarships (Fine Art)—J. B. Bicknell, P. Brown, A. E. Daley, C. Jonus, Susannah Fiennes, Susan D. Norris, Therese Oulton, G. Ward, Sally A. Witcher, A. Stocker.
Bonney Prize (Geology)—J. M. Gilligan.
R. E. Bradbury Memorial Prize (Anthropology)—W. P. Williams.
Brodrick-Parry Prize (Geography)—R. Brackwell.
'Building Prize' (Architecture)—Kok Ng.
Rodney Burns Prize (Fine Art)—A. Stocker.
A. J. L. Cahill Memorial Prize (Political Economy)—E. J. Newall, Y. N. Tang.
Margaret Elizabeth Dale Cast Prize (History)—P. S. Tajfel, Elizabeth Musgrave (equally divided).
Chadwick Certificate and Prize (Civil Engineering)—S. B. Tank.
Lucy Chaplin Memorial Prize (Clinical Sciences)—P. E. Colyer.
Churchill-Jenkinson Prize (Archive Studies)—Patricia M. Sewell.
Antonio Cippico Medal and Prize (Italian)—Cordella Earl.
Lillian Clarke Prize (Botany and Microbiology)—J. Fagg.
Clinton Prize (Electrical Engineering)—D. A. H. Spear, Tan Teck Guan.
Cowley Prizes (Library and Information Studies)—A. Sykes, J. H. Sutton.
Croxon Memorial Scholarships (Clinical Sciences)—M. Y. Loke, H. Chieng, C. Donne, P. Kinder, S. Novak, R. Quinlivan, H. Saba, M. Telfer, J. Tyebkhan.
Deans Scholarships (Architecture)—Sophia Antonopoulou.
Dental Medicine and Surgery Prizes—S. E. Bull, K. H. Garber.
Dental Pathology and Microbiology Prize—M. J. Twitchen.
Dental Pharmacology and Therapeutics Prizes—S. A. V. Peile, P. A. Shindler.
Dental Surgery Prize (Clinical Sciences)—J. E. Ashbee.
Donaldson Medal (Architecture)—Marie H. De Marigny Lagesse.
Geoffrey Duveen Prize in Oto-Rhino-Laryngology—R. A. R. Persad.
Early English Text Society's Prize—Helen Scofield.
Elliot-Blake Studentships—A. R. J. Catlin, I. C. Ezeamuzie, M. E. Howgate.
Environmental Design Prize—I. Harbour, J. Greenwood.
Esso Chemical Travelling Scholarship (Chemical Engineering)—R. A. Cole.
Fellowes Silver Medal Prize (Clinical Sciences)—M. F. O'Donoghue.
Douglas and Anne Feltham Scholarships (Clinical Sciences)—S. Chaplin-Rogers, P. Cowling, D. Gartry.
Ferriere Scholarships (Clinical Sciences)—S. George, E. Love, A. Mead, E. Widdowson.
Fielden Research Scholarship (German)—S. Rainbird.
Filliter Exhibition (Clinical Sciences)—S. C. Mital.

Filliter Elective Period Award (Clinical Sciences)—J. Pryce.
Flemming Elective Period Awards (Clinical Sciences)—O. Dempsey, G. Griffith, J. Williams, J. Wilson.
Flinders Petrie Scholarship in Egyptian Archaeology—R. Morkot, Mariam V. Kamish.
Daryll Forde Award (Anthropology)—R. Hogarth.
Foreign Student Scholarship in Arts—Hariklia G. Ioannidou.
Carey Foster Research Prize (Physics)—P. J. Fitch, H. Ip.
Goldsmid Elective Period Awards (Clinical Sciences)—T. Macmorland, S. Bailey, P. Doyle, P. F. Haimes, E. Kong, N. Wilkes.
Edith Goodyear Prize (Geology)—A. J. Williams.
Eva Grunwald Memorial Prize (French)—Sarah Yandle.
Paul Haas Studentship (Biochemistry)—Susan Dunn.
Violet Hall Prize (French)—Sally Thompson, Anna Warby.
Hart Prize (Photogrammetry)—D. J. Gugan.
Hart Prize (Surveying)—H. J. Wickes.
Bernard Hart Prize (Clinical Sciences)—A. E. Tournay.
Archibald P. Head Memorial Medal and Prize (Mechanical Engineering)—R. J. Tee.
Heimann Medal (German)—Elke Stone.
Henriques Scholarship (Fine Art)—Anita Klein.
Elsie Hitchcock Prize (English)—Charlotte Lennox-Boyd.
John Oliver Hobbes Memorial Scholarship in Modern English Literature—J. Clarke.
Hollier Scholarship in Greek—Margaret Glover.
R. B. Hounsfield Prize in Traffic Engineering—Lai Tai Wai.
Hotine Exhibition (Photogrammetry)—D. J. Gugan.
Huntingdon Research Centre Prize (Histology Part I — Medical Sciences)—A. E. Virchis.
Hurst Prize in English Law—Anna Buscall.
Joel Hurstfield Prize (History)—R. Turner.
ICI Prize (Second Prize in Anatomy — Part I)—Anne Y. Warren.
Institution of Civil Engineers Prize—J. H. Mussi.
Institution of Electrical Engineers Prize—A. C. F. Lee.
Institution of Mechanical Engineers Prize—Vasiliki Tsatsami.
Jackson Lewis Scholarship—O. K. D. Lo.
Sir Hilary Jenkinson Scholarship in Archive Studies—N. P. Webb, S. R. Ashton, P. M. Housego.
Jevons Memorial Scholarship in Economic Science—Miria A. Pigato.
Jolowicz Prize (Roman Law)—Amanda Benham.
Rhianon Jones Memorial Prize (English)—E. Harwood.
Ker Memorial Prize (English)—R. A. Bradbury.
Kitson Prize (Chemical and Biochemical Engineering)—A. Elizabeth Appleton.
Dr R. Kohn Prize (Physiology Part I — Medical Sciences)—Justine M. H. Carr-Brion.
Library and Information Studies Exhibitions—D. J. H. Matthews, V. C. Milot.
Liston Gold Medal Prize (Clinical Sciences)—A. D. Gordon-Brown.
Sydney Long Prize in Surgery—R. Lonsdale.
Sir John MacAlister Medal (Library and Information Studies)—Mary T. J. Russill.
Magrath Scholarship and Fellowes Gold Medal Prizes (Clinical Sciences)—W. A. Nowlan, S. J. Boniface.
H. S. W. Massey Research Prize (Astronomy)—R. H. D. Corbet.
Maxwell Law Prize—Alison Burke.
Mead Scholarship in Geography—Denise Peacock.
Medical Sciences Bursaries Fund Scholarship—F. R. Machado, Anne Bloxham.
Medical Sickness Society Elective Period Award (Clinical Sciences)—R. Turner.
Merck Sharp and Dohme Ltd Prize (Biochemistry Part I — Medical Sciences)—Justine M. H. Carr-Brion.
Merck Sharp and Dohme Ltd Prize (Genetics Part II — Medical Sciences)—F. R. Machado.
Sir William Meyer Prize (Geography)—M. H. Edney.

Sir William Meyer Prize (History)—M. Dixon.
Sir William Meyer Essay Prize (Geography)—R. Brackwell.
Sir William Meyer Travelling Studentships (History)—Hannah E. Cocking. C. E. Darling. S. J. Lewis. G. Verity Meacher. Alison J. Stephen. R. H. C. Turner. Sharon E. M. Trotter. R. J. Wilkin. A. G. Worth.
Momber Scholarship in Physics—N. J. Mason.
Cecily de Monchaux Memorial Prize (Psychology)—Fiona J. Adshead.
Rosa Morison Postgraduate Scholarship in Arts—Demelza Spargo.
Morley Medal and Prize (Modern English Literature)—Doris Myatt.
H. B. Murray Memorial Prize (Clinical Sciences)—S. E. B. Jones.
Melvill Nettleship Prize for Figure Composition—Emma Sergeant.
Ronald Nyholm Prize (Chemistry)—P. Cope.
Orthodontics and Childrens Dentistry Prize (Clinical Sciences)—J. E. Ashbee.
Catherine Maude Pearce Scholarship for Senior Women Students—Demelza Spargo.
Perren Scholarship (Astronomy)—J. M. Jacobs.
Pharmacology Dental Prize (Clinical Sciences)—R. G. Parlour.
Platt Prizes (Greek)—Karine Guzelian. Isobel Koprowski.
Harry Poole Prize (Chemistry)—Elizabeth J. Goodwin.
Postgate Prize (Classical Philology)—Margaret Lauder.
Quain English Essay Prize—M. Benson.
Ramsay Memorial Medal (Chemistry)—J. P. M. Trusler.
Ricardo Scholarship (Political Economy)—Miria A. Pigato.
Mary Rischgitz Prize (Fine Art)—R. Doswell.
Graham Robertson Travelling Scholarships (Fine Art)—Sally Witcher. A. Gryzybowski.
Robert Ross Scholarship in Fine Art—M. Bingham.
Rosenheim Elective Period Awards (Clinical Sciences)—J. Kunz. S. Benjamin. M. J. Parr. R.Welbourn. A. V. Wright. M. Farrell. T. Airey. N. Cheetham. J. Cockburn. S. Fox. A. Lloyd. A. Mariannou. M. Twine. S. Boniface. M. Gamsu. S. Horsman. A. Lewis. V. Lewis. C. Murphy. N. Roberts. N. Rousseau. J. Rustom. D. Scarfe. K. Bibby. M. Blair. N. Lee. M. C. Lewis. A. Thompson. C. Gerada. A. Khakoo. D. Kapacee.
Scher Essay Prize (Clinical Sciences)—C. V. Robertson.
Alfred Sinclair Medal (Clinical Sciences)—M. D. Wainwright.
Slade Prizes (Fine Art)—Sally Witcher. Diana Hill. L. J. Bicknell.
Slade Scholarships (Fine Art)—J. Peppe.
Hugh Smith Memorial Prize (English)—Doris Myatt.
Franz Sondheimer Prize (Chemistry)—J. R. Porter.
Special Dental Anatomy Prizes (Clinical Sciences)—K. R. Jones. D. J. Langdon.
Stevenson Prize (Applied Mathematics)—R. J. Spillett.
Steer Medal and Prize (Fine Art)—T. MacMillan.
Suckling Prize in Obstetrics and Gynaecology—N. Brown.
C. A. R. Tayler Prize (Physics and Astronomy)—A. M. Cassar. M. D. Turrell.
Sir Andrew Taylor Prize in Fine Art—I. Harper.
Taylor Woodrow Travelling Scholarship (Civil Engineering)—D. I. Wotton.
Henry Tonks Prize (Fine Art)—A. Fowler.
Townsend Viking Society Prize (Scandinavian Studies)—Jennifer Stark.
Trotter Medal (Clinical Sciences)—P. L. Allen.
Troughton Scholarship—Demelza Spargo.
Tuffnell Scholarships (Chemistry)—G. P. Proud. Elizabeth J. Goodwin.
Tuke Prize for Chemical Pathology—P. F. Joseph.
Tuke Prize for Medical Microbiology—D. Holdright.
A. J. V. Underwood Exhibition (Chemical and Biochemical Engineering)—N. ul H. Malik.
L. F. Vernon-Harcourt Prize (Civil Engineering)—A. D. Toumazis.
F. M. R. Walshe Prize (Clinical Sciences)—S. J. Boniface.
Ellen Watson Memorial Scholarship in Applied Mathematics—P. W. Matthewson.
Webber Prize (Laws)—D. Mendelsohn.

Dr Christopher Whiteside Awards (Clinical Sciences)—P. M. Doyle, Purity Kinder.
Dr T. D. Whittet Prize (Pharmacology Part II — Medical Sciences)—Anne Bloxham.
Worshipful Company of Pewterers Postgraduate Studentship in London History—N. V. Sleigh-Johnson.
Audrey Wykeham Prize (Fine Art)—I. Harper.
T. C. Yu Elective Period Awards—M. Graber, L. Anderson, M. Austin, J. Broadbent, R. Jones, J. Clarke, A. Scott, S. Vercoe, C. Bealing, T. Craft.

FACULTY MEDALS AND PRIZES

Arts: Rosa Morison Memorial Medal and Prize—Sean N. Rainbird.
Engineering: Goldsmid Medal and Prize—Lui Chi Wai.
Environmental Studies: Medal and Prize—Helen Rainey.
Laws: Andrews Medal and Prize—Alison Burke.
Medical Sciences: Medal and Prize—J. L. Rashbass, Helan V. New.
Science: Medal and Prize—Elizabeth J. Goodwin, Ruth A. Hogarth.

SESSIONAL PRIZES

Anthropology: Rosa Morison Prize—V. Scarborough.
English: Campbell Clarke Scholarships—P. Vickers, Katharine Franco. *Ifor Evans Prize*—R. Shooter. *West Scholarship*—Sarah Bancroft.
Fine Art: Coldstream Prize—H. Kondraki. *Monnington Prize*—Amanda Rabey.
French: Rosa Morison Prizes—Anne Gunner, Genevieu Forward, A. Moses.
Geography: College Prize—R. T. Kitching. *H. C. Darby Prize*—Kathryn E. Staff, Judith A. Darley. *Maconochie Prize*—R. P. J. Nicholson. *1903 Prize*—W. P. Wisden, Clare M. Strutt. *W. R. Mead Prize*—M. T. Smith.
German: Robertson Prize—Ida Moroney. *Willoughby Prize*—Christina Roussety.
Greek: Long Prize—Joy Graham.
History: Alfred Cobban Prize—Sally Foster. *Dolley Prize*—C. Darling. *West Prize*—Rachel Babb. *Pollard Prize*—M. G. Penry.
History of Art: Gombrich Prize—Laura Suffield, Sophie Wilson. *Whittkower Prize*—Catherine Wilson.
Italian: Sir Anthony Panizzi Prize—Sophie Wilson.
Latin: Key Prize—Susan Elders, T. Williams.
Philosophy: Dawes Hicks Scholarships—S. K. Sharma. *A. J. Ayer Prize*—Lesley M. Baxter.
Phonetics and Linguistics: Harold E. Palmer Prize—D. Appleton. *Alexander Melville Bell Prize*—Helen I. Terry. *Goldman Eisher Prize*—Katayoun Ebadi. *D. B. Fry Prize*—Kim T. Jones.
Political Economy: Hume-Lloyd Scholarships—I. A. Daniels, J. Bentley, J. Cabburn, D. E. Lavelle. *G. C. Allen Prize*—P. J. Tickle.
Scandinavian Studies: Crabtree Prize—D. Morris. *Rosa Morison Prize*—M. Bailey.
Spanish and Latin American Studies: Alcala Galiano Prize—Alexandra P. Idris Iglesias. *A. A. Parker Prize*—Susan Smythe.
Laws: Andrews Prizes—Anna Buscall, Susan Waller, Karen Segall, A. Coulthard, Amanda Benham.
Architecture: Bartlett Prizes—J. King, Carol Smith, Kok Ng.
Anatomy and Embryology: J. Z. Young Prize—Sandra Semmens. *N. A. Barnicot Prize*—T. Hawes.
Biochemistry: Jack Drummond Prize—Joanna J. Wright. *Plimmer Prize*—Anne E. Early
Botany and Microbiology: Darwin Prize—Jennifer Barker. *Huxley Prize in Biology*—Maja A. Sommerfelt.
Chemistry: C. K. Ingold Prizes—K. J. Bowyer, I. M. Doherty, A. G. Neville.

Computer Sciences: Sessional Prizes—S. Deal, Caroline Smith, M. Wahid.
Genetics and Biometry: Genetics and Biometry Prize—A. Brasnett.
Geology: Chubb Prize—P. D. Ballantyne.
Mathematics: Filon Prize—Shui Tim Lam. *Hill Prize*—C. Turner. *Jeffery Prize*—D. J. Grenham.
Pharmacology: H. O. Schild Prize—N. Marrion. *Sessional Prize*—C. Deacon.
Physics and Astronomy: William Bragg Prize—R. I. Simpson, S. K. White. *Oliver Lodge Prize*—A. J. A. Lawrence. *Wood Prize*—G. Williams. *Huggins Prize*—J. B. Jones.
Physiology: Sanderson Prize—K. Swann, A. Chitty.
Psychology: Spearman Prize—Susan M. Lloyd.
Statistical Science: Egon Pearson Prize—J. R. Wilson. *Karl Pearson Prize*—P. A. M. De Marigny-Lagesse.
Zoology: Zoology Prizes—S. S. C. Harrison, J. H. Wetton.
Chemical and Biochemical Engineering: Goldsmid Prizes—A. E. P. Thomas, S. P. Davies, S. P. Edwards.
Civil and Municipal Engineering: Goldsmid Prizes—D. O. K. Lo, Tiran Tehranchian, F. Baradaran-Said.
Electronic and Electrical Engineering: Goldsmid Prizes—P. V. Brennan, T. E. Vallely, A. N. Sloper.
Mechanical Engineering: Goldsmid Prizes—R. A. Holland, A. Pittaras, M. R. L. Selbie.
Medical Courses—Part I Examination: Drummond Prize in Biochemistry—D. B. McDowell. *Glaxo Prize for best Aggregate Performance in Part I*—Justine M. H. Carr-Brion. *ICI Prize in Physiology*—S. H. Ting. *Smith Kline and French Laboratories Limited Prize in Anatomy*—Justine M. H. Carr-Brion.
Medical Courses — Part II Examination: Behavioural Sciences Prize—Jane Caldwell. *Cluff Prizes in Physiology*—M. A. B. Devoy, F. R. Machado. *Cuxson Gerrard Prize in Pharmacology*—H. S. Wasan. *Drummond Prize in Biochemistry*—H. S. Wasan. *Elga Prize in General Pathology*—Anne Bloxham. *Suckling Prize in Neurosciences*—G. P. H. Gui, Karina M. Upton. *Wellcome Prize in Human Biology*—P. C. Bouzyk. *Wyeth Prize for best Aggregate Performance in Part II*—Anne Bloxham. *Project Prizes*—J. F. Green, G. P. H. Gui, M. P. Hubbard.
Second Examination in Dental Surgery: Anatomy Prize—P. A. Nixon, Nicola J. Woodley. *Biochemistry Prize*—Deborah G. Cohen. *Physiology Prize*—Deborah G. Cohen. *Best Aggregate Performance Prize*—Deborah G. Cohen.

APPENDIX VI

BENEFACTIONS, DONATIONS, RESEARCH GRANTS AND CONTRACTS

The College Council makes grateful acknowledgement of the following:

AGRICULTURAL RESEARCH COUNCIL
£63,122 for the Department of Physiology for the study of developmental neurobiology: the functional significance of proteins in cerebro spinal fluid of developing brain.

ANDREW ANTENNAS
£4,500 for the Department of Electronic and Electrical Engineering for a novel system for measuring the performance of parabolic reflector antennas.

ANGLO-AUSTRALIAN OBSERVATORY
£888 for the Department of Physics and Astronomy for improvements to the Image Photon Counting System at the AAO Coonabarabran.

ARCHITECTS REGISTRATION COUNCIL
£1,000 for the Bartlett School of Architecture and Planning for case studies of new roles for Architects.

ARTHRITIS AND RHEUMATISM COUNCIL
£59,854 for the Department of Zoology and Comparative Anatomy for the analysis of cell deficit and cloning of regulatory T-cells in auto-immune joint disease.

ASTHMA RESEARCH COUNCIL
£4,500 for the Department of Pharmacology for the study of Substance P as a mediator or modulator of allergic bronchospasm: a study in human and pig lung tissue.

ASTRA PHARMACEUTICALS
£4,788 for the Department of Geriatric Medicine for research work associated with Geriatric Medicine.

BRITISH ACADEMY
£38,975 for the Department of Papyrology for the study of unpublished Oxyrhynchus Papyri.

BRITISH DIABETIC ASSOCIATION
£37,296 for the Department of Medicine for the study of aspects of the biochemistry of the arterial wall in Diabetes Mellitus.

BRITISH GAS CORPORATION
£18,620 for the Department of Chemical and Biochemical Engineering for the study on the atomiser effects in fluidized beds using a high pressure X-ray facility.

BRITISH HEART FOUNDATION
£42,458 for the Department of Physiology for the study of calcium binding and force production of skinned cardiac muscle.

BRITISH LIBRARY
(1) £32,450, £15,250 and £10,000 for the Department of Computer Science for studies of the electronic document.

(2) £800 for the Department of Computer Science for an Overseas study visit.

(3) £600 for the Department of Computer Science for attendance at the 2nd International Symposium on Distributed Data Bases in West Berlin.

(4) £300 for the Department of Computer Science for a visit to Washington to study optical disc.

(5) £19,300 for the School of Library, Archive and Information Studies for the study of the structure and resources of the U.K. Library and Information Services Network.

BRITISH PETROLEUM COMPANY LIMITED

£13,000 and £4,000 for the Department of Chemical and Biochemical Engineering for the study of the pyrolysis and combustion of coal/oil droplets.

BRITISH RAILWAYS BOARD

£11,018 for the Department of Civil and Municipal Engineering for an exploratory study of train accidents on selected lines.

BRITISH TECHNOLOGY GROUP (NRDC)

£10,808 and £2,872 for the Department of Pharmacology for the study of the immuno-suppressant activity of histamine and analogues.

BRITISH TELECOMMUNICATIONS

(1) £7,815 for the Department of Psychology (Ergonomics) for the installation of data entry methods for parcel and packet sorting machines.

(2) £4,127 for the Department of Psychology (Ergonomics) for an evaluation of dialogue forms for transaction processing on video text systems.

CALOUSTE GULBENKIAN FOUNDATION, LISBON

£6,000 for the Department of Geography for the conservation and reproduction of part of the Petrie Archives.

CANCER RESEARCH CAMPAIGN

(1) £13,510 for the Department of Anatomy and Embryology for the study of cyclic AMP and the regulation of the appearance of creatine phosphokinase and acetylcholine receptor during muscle differentiation.

(2) £53,289 for the Department of Biochemistry for the biosynthesis and induction of cytochrome P450.

(3) £11,447 for the Department of Biochemistry for the study of the pre-replicative phase of Saccharomyces Cerevisiae using gene cloning techniques.

(4) £300 for the Department of Biochemistry for the study of the effects of aflaxtoxins and other carcinogens.

(5) £4,475 for the Department of Botany and Microbiology for the study of aspects of carcinogenesis and cancer chemotherapy with reference to mitochondria.

(6) £12,203 for the Department of Clinical Pharmacology — 1983 block grant for nutrition and tumour promotion.

(7) £11,238 for the Department of Genetics and Biometry for the study of the organization of repeated DNA sequence in relation to malignancy in Familiae Polyposis Coli.

(8) £19,410 for the Department of Haematology for lung cancer studies.

(9) £9,103 for the Department of Haematology — 1983 block grant for studies in erythroid differentiation in normal and leukaemic marrow.

(10) £14,365 for the Department of Human Metabolism — 1983 block grant for the study of skeletal muscle protein in malignant cachexia.

C & S ANTENNAS LTD

£34,800 for the Department of Electronic and Electrical Engineering for studies of an HF circular array of active elements.

CENTRAL RESEARCH FUND

(1) £2,002 for the Department of Anatomy and Embryology for research into immunocytochemical localization of putative neurotransmitters in enteric plexuses.

(2) £1,600 for the Department of Pharmacology for the characterization of receptors for substance P by means of antagonists.

COMMISSION OF EUROPEAN COMMUNITIES

(1) £2,000 for the Department of Botany and Microbiology for the study of electron transfer mechanisms.

(2) £1,380 for the Department of Photogrammetry and Surveying for cartographic applications of satellite imagery.

DEPARTMENT OF EDUCATION AND SCIENCE

£1,600 for the Department of Psychology for a study of procedure for failing readers.

DEPARTMENT OF THE ENVIRONMENT

(1) £1,747 for the Bartlett School of Architecture and Planning for decision making in Rural Areas — Stage 2.

(2) £231,854 for the Department of Civil and Municipal Engineering for the urban safety area project — monitoring of project 1.

(3) £10,815 for the Department of Civil and Municipal Engineering for the generation of origin-destination input for CONTRAM.

(4) £6,083 for the Department of Geography for the study of the mechanisms of stone decay in the U.K.

(5) £900 for the Department of Geography for the study of the nature and rate of limestone decay.

DEPARTMENT OF HEALTH AND SOCIAL SECURITY

£22,623 for the Surgical Unit for the study of electro-surgical coagulation in acute upper alimentary haemorrhage employing liquid electrodes.

DEPARTMENT OF INDUSTRY

£38,496 for the Department of Chemistry for the study of the critical properties and vapour pressures of organic compounds.

DEPARTMENT OF TRANSPORT

£8,450 for the Department of Civil and Municipal Engineering for investigations into the 1978-79 National Travel Survey Data.

THE DESIGN COUNCIL

£16,904 for the Department of Political Economy for the study of the economics of design.

DUPHAR LABORATORIES LTD

£200 for the Department of Pharmacology for the study of the pharmacological properties of B-Histamine.

HEALTH AND SAFETY EXECUTIVE

£53,481 for the Bartlett School of Architecture and Planning for an investigation into economic aspects of safety in the construction industry — Stage 2.

IMPERIAL CHEMICAL INDUSTRIES

£13,900 for the Department of Chemical and Biochemical Engineering for the study of the anomalous growth of small crystals.

INDEPENDENT BROADCASTING AUTHORITY

£24,000 for the Department of Electronic and Electrical Engineering for a research project on flat panel aerials.

IMPERIAL CANCER RESEARCH FUND

£46,509 for the Department of Morbid Anatomy for the study of monoclonal antibodies.

JANSSEN PHARMACEUTICALS LTD

£8.643 for the Department of Mental Health for a comparison of family sessions with a relatives group in the treatment of schizophrenic patients.

JOINT COMMITTEE ON POWDER DIFFRACTION STANDARDS

$2,300 for the Department of Geology for the study of powder data of mineral solid solutions.

J. P. KENNY AND PARTNERS LTD

£16,250 for the Department of Civil and Municipal Engineering for a laboratory hydraulic test programme.

MANPOWER SERVICES COMMISSION

£83,026 for the Department of Psychology (Ergonomics) for a study of new technology and the automated office.

MARIE STOPES RESEARCH FUND (EUGENICS SOCIETY)

£432 for the Department of Anthropology for the study of inbreeding and fertility in a South Indian population.

MEDICAL RESEARCH COUNCIL

(1) £120,897 for the Department of Anatomy and Embryology for perceptual and memory studies on the hippocampal place cells.

(2) £56,180 for the Department of Anatomy and Embryology for the study of the innervation of blood vessels in ageing and disease.

(3) £49,672 for the Department of Anatomy and Embryology of the study of osteoblast-osteoelast interactions and the control of osteoclasis.

(4) £45,295 for the Department of Anatomy and Embryology for tandem-scanning reflected light microscopy of interfaces in mineralised tissues.

(5) £45,143 for the Department of Anatomy and Embryology for the study of slow changes in the properties of peripheral and central neurones following peripheral stimulation.

(6) £43,424 for the Department of Anatomy and Embryology for the study of the role of eicosanoid production and action in the *in vitro* cytodifferentiation of muscle.

(7) £24,190 for the Department of Anatomy and Embryology for the study of primary afferent, spinal cord neurones and flexor reflex responses.

(8) £23,883 for the Department of Anatomy and Embryology for studies on the temporal sequence of the haemopoietic response.

(9) £6,320 and £856 for the Department of Anatomy and Embryology for the study of the role of the hippocampus in the spatial deficit of old rats.

(10) £3,453 for the Department of Anatomy and Embryology for the study of the effect of electrical stimulation on diseased muscle.

(11) £2,290 for the Department of Anatomy and Embryology for the study of the neurotransmission to genito-urinary smooth muscle.

(12) £1,512 for the Department of Anatomy and Embryology for the analysis of sensory sums in the nervous system.

(13) £818 and £132 for the Department of Anatomy and Embryology for the assessment of the developmental status of a primitive haemopoietic cell.

(14) £28,500 for the Department of Anthropology for the analysis of scaling factors relating brain development to body size, metabolic rate and reproductive parameters.

(15) £24,452 for the Department of Chemistry for the study of the biological significance of active fragments of nerve growth factor.

(16) £26,490 for the Department of Experimental Pathology for the study of the physiological significance of free spicules from re-oxygenated sickle cells.

(17) £2,208 for the Department of Experimental Pathology for the study of vesiculation processes in human erythrocytes.

(18) £24,775 for the Department of Genetics and Biometry for a search for genetical variation of neuro-transmitter receptors in the laboratory mouse.

(19) £1,598 for the Department of Genetics and Biometry for developmental studies of gonads in male sterile mice with chromosome translocations.

(20) £83,600 for the Department of Haematology for the study of the prevention of GVHD by cytotoxic drops encapsulated in liposomes by monoclonal antibodies to T lymphocytes.

(21) £35,359 for the Department of Haematology for the study of young red cells in the treatment of transfusion-dependent patients with anaemia and for intra-uterine tranfusion.

(22) £9,320 for the Department of Haematology for the study of the bacterial killing mechanisms of human neutrophils: normal cell biology and patho-physiology of clinical diseases.

(23) £1,200 for the Department of Haematology for the study of fluorescent activated cell sorting: antenatal diagnosis, bone marrow stem cell isolation and detection of cancer cells.

(24) £15,769 for the Department of Human Metabolism for studies of metabolites of normal man and patients with myopathies or diabetes and other inherited metabolic diseases.

(25) £10,076 for the Department of Mental Health for a comparison of family sessions with a relatives group in the treatment of schizophrenic patients.

(26) £8,520 for the Department of Microbiology for a study of the characterization of rubella virus antigens which induce neutralizing antibodies: possible use in a subunit vaccine.

(27) £75,243 for the Department of Morbid Anatomy for studies on mucosal macrophages, gut associated lymphoid tissue and primary gastro-intestinal lymphoma.

(28) £38,772 for the Department of Obstetrics and Gynaecology for first trimester diagnosis for haemoglobinopathies by globin chain synthesis studies.

(29) £54,273 for the Department of Paediatrics for the study of the control of petal lung liquid absorption.

(30) £30,734 and £717 for the Department of Paediatrics for the isolation and testing of human surfactant.

(31) £3,965 for the Department of Paediatrics for prevention of brain damage in new born infants who require intensive care.

(32) £2,000 and £2,000 for the Department of Pharmacology for the investigation of cholinergic synapses.

(33) £860 for the Department of Pharmacology for the analysis of neuro-transmitter and synaptic function in the vertebrate nervous system.

(34) £266,997 for the Department of Phonetics and Linguistics for the study of electrical hearing and speech pattern presentation to the deaf.

(35) £10,420 for the Department of Phonetics and Linguistics for the study of long-term single channel extra-cochlear electrical stimulation for speech pattern representation.

(36) £40,037 for the Department of Physiology for the study of the mechanism of contractile failure in hypoxic cardiac muscle.

(37) £24,155 for the Department of Physiology for experiments in the comparative physiology of muscle energetics and mechanics.

(38) £17,110 for the Department of Physiology for the study of local and peripheral effects of capsaicin applied locally to nerves in animals.

(39) £6,865 and £1,638 for the Department of Physiology for the construction of mouse chimaeras for the investigation of neurological mutants.

(40) £1,142 for the Department of Physiology for the study of factors affecting the build-up of potassium around active neurones.

(41) £775 for the Department of Physiology for quantitative studies of the fine structure of muscle fibres previously subjected to experimental procedures.

(42) £50,850 for the Department of Psychology for the study of the influence of the intensity response function upon the early stages of human spatial vision.

(43) £41,130 for the Department of Psychology for the study of the semantic organisation of the lexicon: evidence from Aphasia.

(44) £7,271 for the Surgical Unit for the study of methysergide-resistant effects of 5-hydroxytryptamine.

(45) £9,818 for the Department of Zoology and Comparative Anatomy for the study of the immunology of the nervous system.

MENTAL HEALTH FOUNDATION

£4,943 for the Department of Medicine, a grant for the purchase of research equipment.

MIGRAINE TRUST

£4,500 for the Department of Anatomy and Embryology for the study of migraine and reproductive steroids.

MINISTRY OF DEFENCE

(1) £19,060 for the Department of Chemistry for resonance raman spectroscopy of explosives.

(2) £87,160 for the Department of Computer Science for the investigation of inter-networking techniques for packet-switched communications.

(3) £45,371 and £4,400 for optical fibre gyroscopes: an assessment of performance potential.

(4) £25,000 for the Department of Electronic and Electrical Engineering for the investigation of ultrasonic waves in powder metallurgy disc alloys.

(5) £19,751 for the Department of Electronic and Electrical Engineering for bistatic radar research.

(6) £13,200 for the Department of Electronic and Electrical Engineering for elastic wave velocity measurements for calculating residual stress.

(7) £10,210 for the Department of Electronic and Electrical Engineering for the study of lens fed conformal antenna arrays.

(8) £8,960 for the Department of Electronic and Electrical Engineering for the realisation of microwave circuit functions using acoustic surface waves.

(9) £8,589 for the Department of Electronic and Electrical Engineering for the study of ultrasonic transducers.

(10) £8,398 for the Department of Electronic and Electrical Engineering for ultrasonic propagation studies.

(11) £7,972 for the Department of Electronic and Electrical Engineering for the minimization of lead sensitivity of coherent optical fibre sensors.

(12) £4,520 for the Department of Psychology (Ergonomics) for the study of the use of colour on the AMTE/APU A10 demonstrator.

MULTIPLE SCLEROSIS SOCIETY

£100,450 for the Department of Zoology and Comparative Anatomy for the analysis and cloning of antigen-reactive T cells in MS.

MUSCULAR DYSTROPHY GROUP OF GREAT BRITAIN

(1) £12,523 and £11,287 for the Department of Anatomy and Embryology for the study of *in vitro* proliferation and cytodifferentiation of normal and dystrophic satellite cells.

(2) £10,254 for the Department of Anatomy and Embryology for the study of the effects of functional overloading on developing slow and fast muscles.

(3) £8,667 for the Department of Anatomy and Embryology for study of the influence of the innervation on the development of different membrane properties of slow and fast muscles.

(4) £18,502 for the Department of Biophysics for the study of the factors involved in the activation and differentiation of satellite muscle cells.

(5) £51,953 for the Department of Human Metabolism for the Muscular Dystrophy Treatment Centre.

(6) £13,337 for the Department of Zoology and Comparative Anatomy for a study of human muscle cells grown in tissue culture.

(7) £900 for the Department of Zoology and Comparative Anatomy for the study of acetylcholine receptors.

NATIONAL FOUNDATION FOR CANCER RESEARCH INC.

£2,000 for the Department of Medical Microbioloy for the Cervical Cancer Project.

NATIONAL FUND FOR RESEARCH INTO CRIPPLING DISEASES

(1) £43,313 for the Department of Physiology for studies of the biochemistry of uterine muscle using nuclear magnetic resonance.

(2) £46,628 for the Department of Zoology and Comparative Anatomy for a study into the migration of cells from the neural crest.

NATIONAL KIDNEY RESEARCH FUND

(1) £20,087 for the Department of Medicine for studies of whole-body and muscle protein turnover in patients with renal failure and the nephratic syndrome, studied by stable isotope methods.

(2) £8,069 for the Department of Medicine for the study of dietary fibre in Uraemia.

NATURAL ENVIRONMENT RESEARCH COUNCIL

(1) £13,052, £5,568 and £4,476 for the Department of Geology for the investigation of the Mesozoic and Palaeocene history of the Eastern Equatorial Atlantic.

(2) £18,778 for the Department of Photogrammetry and Surveying for the application of data from the spot satellite.

(3) £550 for the Department of Physics and Astronomy (Mill Hill Observatory) for geological studies of Mars using new Viking data and preparation for a NASA Venus Mission.

NATURE CONSERVANCY COUNCIL

£7,255 for the Bartlett School of Architecture and Planning for the Urbanism Project Stage II.

NFCR — CANCER RESEARCH ASSOCIATION

(1) £2,500 for the Department of Biochemical Pathology for the identification of viral oncogenic sequences in carcinoma of the cervix.

(2) £2,000 for the Department of Biochemical Pathology for studies into virus replication.

(3) £650 for the Department of Botany and Microbiology for the study of mutagenesis.

NORTH ATLANTIC TREATY ORGANISATION

(1) £78,000 for the Department of Chemistry for microwave and millimetre wave spectroscopy of hydrogen bonded dimers.

(2) £2,120 for the Department of Chemistry for the study of transport properties of ionic oxides and fluorides.

NUFFIELD FOUNDATION

(1) £2,800 for the Bartlett School of Architecture and Planning for two case studies of local controversies between agricultural and forestry development and conservation.

(2) £2,250 for the Bartlett School of Architecture and Planning for the establishment of a clearing house for case studies in architectural design.

(3) £550 for the Bartlett School of Architecture and Planning for a conference on socio-economic change in rural areas in Britain and France in the post-war period.

(4) £1,000 for the Department of Geography to support a conference on the regional economic problem in the U.K.

(5) £6,716 for the Department of Laws for the study of the enforcement of planning controls in England outside London.

(6) £1,125 for the Department of Medicine for the study of the rate of protein breakdown in gut.

(7) £1,133 for the Department of Zoology and Comparative Anatomy for the study of substance P and somatostatin distribution in sensory neurones of chick dorsal root ganglia.

(8) £1,133 for the Department of Zoology and Comparative Anatomy for the development of a sensitive assay system to detect and measure antigen specific helper and suppressor factors produced by T cells.

(9) £1,133 for the Department of Zoology and Comparative Anatomy for the study of a self protein in serum.

(10) £1,000 for the Department of Zoology and Comparative Anatomy for a workshop meeting on the people of Orkney.

ORDNANCE SURVEY

£4,910 for the Department of Photogrammetry and Surveying for the synthetic aperture radar (SAR 580) project.

OVERSEAS DEVELOPMENT ADMINISTRATION

£19,650 and £2,022 for the Department of Anthropology for integrated agricultural development projects in Sierra Leone.

PARKINSON'S DISEASE SOCIETY

£47,560 for the Department of Pharmacology for the study of the effect of progressive lesions of the nigro-striatal tract in rats on neurotransmitter systems and their response to long term treatment with l-dopa.

PILKINGTON BROTHERS LTD.

£7,500 for the Surgical Unit for the induction of colonic tumours and transplantation of subcutaneous tumours in rats.

ROTHSCHILD FOUNDATION

£7,000 for the Department of Hebrew and Jewish Studies for part-time teaching.

ROYAL SOCIETY

(1) £750 for the Department of Anatomy and Embryology for ion and volume regulation in early marine embryos.

(2) £2,000 for the Department of Geology for the Sulitjelma Ophiolite Expedition.

(3) £720 for the Department of Pharmacology for the study of calcium homeostasis and control of transmitter release at the squid giant synapses.

(4) £5,050 for the Department of Physiology for the study of heat production in single muscle fibres.

RUTHERFORD APPLETON LABORATORY (SERC)

£4,995 for the Department of Electronic and Electrical Engineering for computer assisted designs for printed circuit boards.

SCIENCE AND ENGINEERING RESEARCH COUNCIL

(1) £94,135 for the Department of Anatomy and Embryology for the study of the organisation of the visual cortical areas in the monkey.

(2) £41,720 for the Bartlett School of Architecture and Planning for the study of spatial configurations and use density at the urban level.

(3) £60,414 for the Department of Biochemistry for investigations of enzymic reactions involving coenzyme B12, folates and haem by rapid reaction methods.

(4) £33,063 for the Department of Biochemistry for the study of sequence-dependence of initiation and termination of transcription of a protamine gene.

(5) £32,360 for the Department of Biochemistry for the study of the molecular basis of the expression of P. aeruginosa amidase genes.

(6) £6,620 for the Department of Biochemistry for the regulation of transcription of P. aeruginosa amidase genes *in vitro*. Expression of ami E in E coli.

(7) £39,220 for the Department of Botany and Microbiology for the study of membrane protein changes in E coli induced by the F like plasmid Colv-K94.

(8) £13,480 for the Department of Botany and Microbiology for X-ray absorption studies of the role of metals in the oxidation of water by photo-synthetic organisms.

(9) £122,532 for the Department of Chemical and Biochemical Engineering for the study of the integration of fermentation and subsequent processing operations for microbial protein products.

(10) £28,500 for the Department of Chemical and Biochemical Engineering for biochemical engineering studies of membrane-associated enzymes.

(11) £13,110 for the Department of Chemical and Biochemical Engineering for a report on the British biological industries.

(12) £45,000 for the Department of Chemistry for laser flash photolysis studies of radical reactions in solutions.

(13) £33,801 for the Department of Chemistry for spectroscopy of transition-metal complexes with sulphur donor ligands.

(14) £22,450 for the Department of Chemistry for the study of small oxy-ligands.

(15) £21,000 for the Department of Chemistry for the characterisation and synthesis of phytoalexins and a phytoalexin-eliciting substance.

(16) £21,000 for the Department of Chemistry for approaches to the asymmetric synthesis of macrolide antibiotics.

(17) £21,000 for the Department of Chemistry for the study of homolytic reactions of complex metal hydrides with organic compounds.

(18) £21,000 for the Department of Chemistry for the study of kinetics and mechanism of fast substitution of square planar transition metal complexes.

(19) £21,000 for the Department of Chemistry for light-dependent synthesis and degradation of monoterpenes in tissue cultures of Pinus species.

(20) £19,400 for the Department of Chemistry for neutron diffraction studies of superionic conductors.

(21) £18,000 for the Department of Chemistry for an organometallic and organic synthesis/infrared spectrometer.

(22) £11,660 for the Department of Chemistry for EXAFS studies of disorder in crystalline solids.

(23) £11,609 for the Department of Chemistry for the study of the speed of sound in gases.

(24) £10,850 for the Department of Chemistry for the study of the chemical polarization of nitration and related reactions.

(25) £12,700 for the Department of Civil and Municipal Engineering for the development of an automated flocculation test method.

(26) £75,729 for the Department of Computer Science for network communications with the U.S.A.

(27) £53,880 for the Department of Computer Science for a study of protocol requirements for multi-media messages and intercommunicating office machines.

(28) £812,205 for the Department of Electronic and Electrical Engineering for the Microwave Research Unit — continuation of special agreement 1983-87.

(29) £159,110 for the Department of Electronic and Electrical Engineering for the study of interferometric optical systems.

(30) £43,242 for the Department of Electronic and Electrical Engineering for the computer design of microwave filters using abrupt steps in microstrip and planar guides.

(31) £26,695 for the Department of Electronic and Electrical Engineering for the application of scanning acoustic microscopy techniques to polymer studies.

(32) £19,676 for the Department of Electronic and Electrical Engineering for an interactive mini-computer system (recurrent support).

(33) £14,400 for the Department of Electronic and Electrical Engineering for molecular beam epitaxy of lithium niobate.

(34) £12,700 for the Department of Electronic and Electrical Engineering for a novel system for measuring the performance of parabolic reflector antennas.

(35) £7,250 for the Department of Electronic and Electrical Engineering for differential phase contrast optical microscopy.

(36) £13,373 for the Department of Mechanical Engineering for fatigue mechanics analysis for predicting fatigue life of welded structures off-shore.

(37) £684,000 for the Department of Physics and Astronomy (Mullard Space Science Laboratory) for geophysical and astronomical research in space.

(38) £407,440 for the Department of Physics and Astronomy for experimental high energy Physics, 1982-85.

(39) £355,200 for the Department of Physics and Astronomy for image processing.

(40) £99,347 for the Department of Physics and Astronomy for a balloon programme of infra-red astronomy 1983-84.

(41) £94,277 for the Department of Physics and Astronomy for atmospheric research 1983.

(42) £78,468 for the Department of Physics and Astronomy for developments to the CCD based image photon counting system.

(43) £69,806 for the Department of Physics and Astronomy for ultraviolet studies of stars, the interstellar medium and active galaxies.

(44) £29,806 for the Department of Physics and Astronomy for experimental high energy equipment for 1983-84.

(45) £29,663 for the Department of Physics and Astronomy for the launch costs for the balloon experiment.

(46) £22,836 for the Department of Physics and Astronomy for the study of planetary nebulae and their central stars.

(47) £22,222 for the Department of Physics and Astronomy for experimental high energy physics: equipment for 1982-83.

(48) £22,100 for the Department of Physics and Astronomy for the study of the interactions of hadrons, nuclei and quarks.

(49) £18,105 for the Department of Physics and Astronomy for the application of a cryogenic CCD camera to narrow band photometry.

(50) £16,210 for the Department of Physics and Astronomy for additional developments to the image photon counting system.

(51) £8,837 for the Department of Physics and Astronomy for the development of a field-widened, triple-etalon, Febry-Perot interferometer.

(52) £6,218 and £5,942 for the Department of Physics and Astronomy for observations at SAAO.

(53) £4,000 for the Department of Physics and Astronomy (Mullard Space Science Laboratory) for geophysical and astronomical research in space: ASR Board short-term VF grant.

(54) £4,018, £3,304, £1,643 and £1,296 for the Department of Physics and Astronomy for observations at AAT.

(55) £2,953 for the Department of Physics and Astronomy for observations at CT and AAT.

(56) £2,639 and £2,002 for the Department of Physics and Astronomy for observations at UKIRT.

(57) £2,117 and £1,966 for the Department of Physics and Astronomy for observations at Mt Palomar.

(58) £150 for the Department of Physics and Astronomy for the study of intermediate energy kaon-nucleon amplitudes.

(59) £37,267 for the Department of Psychology (Ergonomics) for an evaluation of dialogue forms for transaction processing of video text systems.

(60) £20,098 for the Department of Zoology and Comparative Anatomy for the characterization of a cell encoded DBP during HSV-1 lytic infection.

SIR JULES THORN CHARITABLE TRUST

£29,734 for the Department of Obstetrics and Gynaecology for the study of the prevention of inherited disease in children.

SMITHKLINE FOUNDATION

£770 for the Department of Experimental Pathology for a study of human polymorphonuclear leukocytes.

SOCIAL SCIENCE RESEARCH COUNCIL

(1) £6,410 for the Department of Anthropology for the study of Christianity, custom and colonial change in the Solomon Islands.

(2) £4,090 for the Bartlett School of Architecture and Planning for a conference on housing research in Britain — the next decade.

(3) £1,500 for the Bartlett School of Architecture and Planning to conduct three one-day seminars on rural themes and organise a weekend conference on the theme of rural deprivation and welfare.

(4) £420 for the Bartlett School of Architecture and Planning for the study of Local Government and the Labour Left.

(5) £11,350 for the Department of Civil and Municipal Engineering for international comparisons of the effects of petrol prices on consumption by cars.

(6) £2,500 for the Department of Civil and Municipal Engineering for the study of equity issues and the provision of transport.

(7) £3,447 for the Department of Geography for the study of the influences of sanitary and other social changes on the eutrophication of Lough Erne since 1850.

(8) £23,140 for the Department of Phonetics and Linguistics for the study of the interaction between grammar and pragmatics.

(9) £20,600 for the Department of Phonetics and Linguistics for the study of Welsh syntax and current syntactic theories.

(10) £9,014 for the Department of Phonetics and Linguistics for an exploratory investigation of the effect of jargon on writing and thinking.

(11) £27,060 for the Department of Psychology for the study of the social-psychological aspects of unemployment.

(12) £1,860 for the School of Library, Archive and Information Studies for 'The British Labour Movement 1971-80': a bibliography.

STANDARD TELECOMMUNICATIONS LABORATORIES LTD

£9,000 for the Department of Electronic and Electrical Engineering for studies of Rotman Lenses.

STANLEY THOMAS JOHNSON FOUNDATION

£32,500 for the Department of Human Metabolism for the development of methods for measuring turnover of metabolites in the human body using stable isotope technology.

STERLING-WINTHROP GROUP LTD.

£10,485, £320, £320 and £320 for the Dental School (Periodontology) for the evaluation of crystalline hydroxylapatite as a graft material in patients with periodontal lesions.

TRUSTS DONATIONS

£1,500 for the Department of Hebrew and Jewish Studies for part-time teaching.

THAMES WATER

£950 for the Department of Botany and Microbiology for survey and observations at Maple Lodge.

UNITED KINGDOM ATOMIC ENERGY AUTHORITY

(1) £36,187 for the Department of Chemical and Biochemical Engineering for the development of crystallizer soak up methods.

(2) £41,540 for the Department of Chemistry for extensions to materials modelling codes.

(3) £93,870 for the Department of Computer Science for equipment supplied by the Authority for installation at UCL.

(4) £20,000 for the Department of Computer Science for the integrated satellite/ring experimental computer network (Project Universe).

(5) £66,800 for the Department of Physics and Astronomy (Mullard Space Science Laboratory) for participation in the AMPTE sub-satellite project.

(6) £10,000 for the Department of Physics and Astronomy for the study of accurate excitation and ionisation rate coefficients based on the g formation.

UNITED KINGDOM THALASSAEMIA SOCIETY

£5,802 for the Department of Obstetrics and Gynaecology for the study of antenatal diagnosis for Thalassaemia.

UNITED STATES PUBLIC HEALTH SERVICES

$24,820 for the Department of Chemistry for the study of the three-dimensional structure of protein molecules.

$29,363 for the Department of Physiology for the study of neuronal synchronization in motor control.

WELLCOME TRUST

(1) £48,543 for the Department of Anatomy and Embryology for the study of the distribution of small ions during early development of the mammalian embryo.

(2) £39,281 for the Department of Anatomy and Embryology for a study of the factors controlling the death of motoneurones during development.

(3) £13,200 for the Department of Anatomy and Embryology for a Research Assistantship.

(4) £10,000 for the Department of Chemistry for the study of histamine secretion from mast cells from different tissues and species.

(5) £17,315 for the Department of Genetics and Biometry to study the effects of male-sterile chromosome re-arrangements in the mouse on the gonads and germ cells in males and females.

(6) £65,616 for the Department of Haematology for a study of the neutrophil function in relation to infection.

(7) £3,450 for the Department of Haematology for a study of compound BW12C.

(8) £837 for the Department of Human Metabolism for the study of the mechanisms underlying muscle protein breakdown and repair in man in health and disease.

(9) £17,000 for the Department of Medicine for studies of the value of glycosolated haemoglobin as a screening test for Diabetes Mellitus.

(10) £21,310 for the Department of Obstetrics and Gynaecology for the development of first trimester antenatal diagnosis of the haemoglobinopathies.

(11) £1,000 for the Department of Obstetrics and Gynaecology for the investigation of the effect of the iron chelating agent Ca DTPA on trace metal metabolism.

(12) £116,690 for the Department of Paediatrics for the study of the development of carrier mediated transport of amino acids of the blood brain barrier.

(13) £49,095 for the Department of Pharmacology for the study of the functional relationship in skin of substance P and histamine and their roles in inflammation.

(14) £42,265 and £2,854 for the Department of Pharmacology for studies on receptor-mediated changes in the ionic permeability of hepatocytes: characterization using apamin.

(15) £29,436 for the Department of Physiology for the study of plasma proteins in embryonic development.

WB PHARMACEUTICALS

£14,695 for the Department of Clinical Pharmacology for a study of the pharmacology of cyclophosphamide, ifosfamide and mesna as treatment for cancer.

WESTLAND HELICOPTERS LTD.

£14,550 for the Department of Electronic and Electrical Engineering for the study of optical fibre strain gauges.

WOLFSON FOUNDATION

(1) £100,000 for the Department of Electronic and Electrical Engineering for the Wolfson Unit for Optical Fibre Instrumentation Systems.

(2) £40,000 for the Department of Photogrammetry and Surveying for the development of three-dimensional measurement systems for industry.

WORLD HEALTH ORGANISATION

US $10,000 for the Department of Obstetrics and Gynaecology for the development of new methods and approaches for treatment and management of hereditary diseases.

BRITISH MARITIME LAW ASSOCIATION
Series of files dated 1947-1971 for the Manuscripts collection.

MRS C. COLVIN
18 letters from Sir Francis Galton and members of his family for the Manuscripts collection.

MRS S. GROAK
152 volumes for the Environmental Studies Library.

MRS D. MIDDLETON
Over 40 letters written between 1839 and 1851 by Henry Peter, 1st Lord Brougham for the Manuscripts collection.

MR M. THOMAS
Collection of working papers, lecture notes and correspondence of the late Professor J. A. C. Thomas for the Manuscripts collection.

PROFESSOR B. C. VICKERY
50 volumes for the Librarianship collection.

APPENDIX VII

COLLEGE ACCOUNTS 1982-83
(INCLUDING FACULTY OF CLINICAL SCIENCES)

The Balance Sheets and the Income and Expenditure Accounts for the year will be found on pages 210-11.

INCOME AND EXPENDITURE

EXPENDITURE for the year exceeded INCOME by £761,811. The net deficit carried forward on the Income and Expenditure Account was £1,904,597.

Income exceeded that for 1981-82 by £2,963,905. Grants from the Court of the University increased by £3,159,918. Fees decreased by £1,559,687 and grants for research increased by £1,615,970.

Expenditure, including allocations to and from Reserves, was £2,943,657 more than in 1981-82. An additional £3,058,707 was spent on academic departments and services. Maintenance of premises increased by £507,243 net. An additional £27,067 net was spent on administration, and miscellaneous expenditure decreased by £649,360 net.

Income and expenditure under the main classifications in 1982-83 as compared with 1981-82 and with the corresponding year of the previous quinquennium, are shown in the following table.

	1977-78		1981-82		1982-83	
	£	%	£	%	£	%
EXPENDITURE						
Salaries and Pensions of Teaching Staff	7,946,418	34.4	15,215,255	34.5	15,741,091	33.5
Departmental Expenses, including Library	4,949,260	21.4	9,069,965	20.6	9,986,866	21.2
Research Grants	4,271,016	18.5	9,022612	20.5	10,638,582	22.6
Maintenance of Premises	3,695,015	16.0	6,538,843	14.8	7,046,086	15.0
Administration	1,468,084	6.3	2,459,973	5.6	2,487,040	5.3
Other	791,388	3.4	1,789,504	4.0	1,140,144	2.4
	£23,121,181	100.0	£44,096,152	100.0	£47,039,809	100.0
INCOME						
Endowments	184,975	0.8	328,245	0.8	276,517	0.6
Grants	14,411,134	62.6	23,863,642	55.1	27,023,560	58.4
Donations	451,406	2.0	2,061,220	4.8	2,005,106	4.3
Fees	3,327,240	14.4	7,152,483	16.5	5,592,796	12.1
Grants for Research	4,271,016	18.5	9,022,612	20.8	10,638,582	23.0
Research Training Support Grant	58,080	0.3	65,214	0.1	69,660	0.1
Other	324,642	1.4	820,677	1.9	671,777	1.5
	£23,028,493	100.0	£43,314,093	100.0	£46,277,998	100.0

EXTRA-BUDGETARY ACTIVITIES

The College administers the finances of many research projects supported from outside sources. 664 were being pursued actively at 31 July 1983. Income and expenditure increased from £9,022,612 in 1981-82 to £10,638,582 in 1982-83.

UNIVERSITY COLLEGE LONDON
BALANCE SHEET AS AT 31 JULY 1983

1982 £		1983 £	£
	FIXED ASSETS		
20,935,174	Land and Buildings		20,930,615
	INVESTMENTS at lower of cost and		
4,960,816	Market Value		6,066,467
25,895,990			26,997,082
	CURRENT ASSETS		
225,947	Stores	246,510	
2,586,378	Expenditure Recoverable from Grants	4,285,212	
2,675,164	Debtors and Amounts Paid in Advance	2,622,775	
7,550,000	Short-Term Cash Deposits	5,300,000	
208,571	Cash at Bank and in Hand	391,317	
13,246,060		12,845,814	
	Less: **CURRENT LIABILITIES**		
(866,593)	Bank Overdraft	—	
(3,848,217)	Creditors and Accruals	(4,036,756)	
8,531,250	**NET CURRENT ASSETS**		8,809,058
34,427,240	**NET ASSETS**		35,806,140
2,839,174	**TRUST FUNDS**		3,378,165
£37,266,414			£39,184,305
	REPRESENTED BY:		
20,840,193	Capital Reserve		20,842,584
(533,249)	Adverse Balance on Other Reserves		(1,225,496)
5,526,590	Provisions		6,429,815
804,581	Balance carried forward on Revenue Grants		801,446
7,789,125	Earmarked Funds		8,957,791
34,427,240			35,806,140
2,839,174	**TRUST FUNDS**		3,378,165
£37,266,414			£39,184,305

INCOME AND EXPENDITURE ACCOUNT FOR THE YEAR ENDED 31 JULY 1983

1981-82		1982-83	
£		£	£
	INCOME		
23,863,642	Grants from University Court		27,023,560
7,152,483	Fees		5,592,796
328,245	Endowments		276,517
2,061,220	Donations		2,005,106
9,022,612	Grants for Research		10,638,582
65,214	Research Council Training Support Grants		69,660
220,672	Contributions for Service Rendered		353,523
35,098	College Properties — Rents Receivable		38,466
19,939	Appropriation from Special Funds		55,113
388,195	Interest Receivable		187,913
156,773	Miscellaneous		36,762
139,546	Provision for Salary Awards at 1 August 1982		282,739
1,201,275	Allocation from Reserves at 1 August 1982		1,206,672
£44,654,914			47,767,409
	EXPENDITURE		
2,454,627	Administration	2,509,024	
30,823,991	Academic Departments	33,483,498	
1,414,212	Academic Services	1,458,747	
6,649,269	Maintenance of Premises	6,958,384	
272,053	General Education Expenditure	410,837	
670,292	Student Facilities and Amenities	687,633	
1,235,988	Miscellaneous	1,749,749	
147,130	Capital Expenditure met from Income	272,181	
282,739	Provision for Salary Awards	37,194	
180,000	Provision for Future Reorganisation	—	
1,306,672	Allocation to Reserves at 31 July 1983	961,973	
£45,436,973			48,529,220
(782,059)	EXCESS OF EXPENDITURE FOR THE YEAR		(761,811)
(360,727)	ACCUMULATED DEFICIT AT 1 AUGUST 1982		(1,142,786)
£(1,142,786)			£(1,904,597)